

AMERICAN NURSERYMAN

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The Nurseryman's Forte: To Make America More Beautiful and Fruitful

SEPTEMBER 1, 1943



Mahonia Aquifolium

Southern Association Meets at Atlanta
Propagating Difficult Plants
Control of Diseases and Insects in Soil
Irises for the General Nurseryman

Editorial

DWARF FRUIT TREES.

The emphasis on fruit production in the victory garden program brought requests from home gardeners for dwarf fruit trees far beyond the ability of nurserymen to meet the past spring. The supply was not large, nor will it be in the early future, because the rootstocks employed to produce the dwarfing effect are slow of propagation under present methods.

Since the call for dwarf fruit trees comes chiefly from gardeners with home grounds of limited size, they should be interested in espalier fruit trees. Espalier trees can be grown against the side of the house or garage or on a garden wall, so as to take little space away from the open garden area. They are hardy and adaptable to a wide variety of soils, and they combine decorative value with early production of fruit. The supply is believed to be larger than that of the dwarf fruit trees on Malling rootstocks. Nursery firms in various parts of the country have specialized in espalier trees for years. Because of their higher price, they were sold principally to estate owners. But with the public in the easy spending mood of the present, it would seem like an opportune time to interest a wider group of buyers in espalier fruit trees.

HANDLING STORE STOCK.

When gasoline rationing seemed likely to curtail the number of customers who called at the nursery, some firms in the east dependent upon that type of trade last spring sought to bring their plants nearer to the public by establishing stores or sales lots in near-by towns or cities. In some cases, department stores, seeking merchandise to sell, invited nurserymen to use their quarters.

The resulting experiences varied. Some nurserymen found results highly successful, while others were considerably less satisfied. The reason lay largely in the amount of planning and preparation, according to those reporting on their experiences.

Where it was possible to obtain help experienced in handling plants or where nurserymen were able to give adequate supervision, the project turned out well. But trained help was hard to get, and a nursery-

man found it hard to be in two places at once.

But the public demand was so strong that some of the nurserymen who did not meet with success last season are contemplating another attempt, hopeful that foresighted preparations, from lessons they learned last spring, will enable them to deliver the stock to the stores on a schedule which will keep on hand a desirable quantity and assortment, without danger of having to carry the stock longer than is desirable to maintain good vitality.

Stock in beds outside the store, where it can be given plenty of air and water, will keep thrifty far longer than in the average store. The quarters obtainable for sales lot or garden store vary greatly, and one must do the best he can in his particular locality. But if you are contemplating such a venture in the season ahead, be sure to study the situation carefully and make plans well in advance of the rush to avoid costly mistakes.

THE DRAFTING OF FATHERS.

The only thing certain about the statements of government officials about the proposed drafting of fathers is that they have made the young men with families uncertain. If the statements of Washington are not contradictory, they are at least unconvincing as to the precise action that is to be taken. The reconvening of Congress will add to the fireworks.

While figures as to the need of additional men by the army are occasionally cited, the official statements infer that the fathers should be doing their part in war factories, and they will be drafted if they don't. At the same time, it appears that deferment of men engaged in war work will only be temporary except in the case of those whose special occupation or skill makes them irreplaceable. That brings in its train a series of questions as to the rights and privileges the nursery employee, let us say, will forego by entering a war factory, rather than waiting to see whether or not he will actually be drafted.

The outlook is the more unsettling because the recent successes of the Allies are causing employees of all types to give more attention to their future after the war. A year or so ago the young men, as well as others, were thinking more about the high wages of construction crews and war factories than about how long such

The Mirror of the Trade

jobs would last. Now the high rates of pay are less attractive, not only to young fathers who may be drafted, but to others as well, because they recognize that a good job with a future is worth a lot more than temporary high wages that can be spent for only a limited number of things anyway.

The fathers have been the most settled employees all along, by and large, and they were looking ahead when others were running around trying to get all the money they could while it was easy to collect. For that sane and conservative attitude they fear now they will be penalized. Of course, if they are drafted, the law requires that their employers return them to their old jobs after discharge from service. But if they go into war factories, they have no such legal right and, after serving their country in such capacity, they may find themselves at the mercy of postwar competition for jobs. Hitherto the government has recognized the responsibilities of these young men and has not questioned their patriotism. They are as patriotic as the rest of us, and they deserve to have their prospects clarified in order that they may know what they should do in the best interests of their families and their country.

THE PUBLIC IS BUYING.

From the trend of public buying recently reported, nurserymen can look forward to good autumn business so far as merchandise is available. The Department of Commerce estimates that chain stores and mail-order sales during June were \$1,185,000,000. This figure topped every 1943 month except April, with its heavy Easter buying. The volume in June was up two per cent over the same month of 1942. The largest relative gains were recorded by the clothing trades, restaurants, drug and accessory, tire and battery stores. They were up from twenty to thirty per cent. Variety and general merchandise stores bettered their 1942 business by about eight per cent. Grocery store sales were away down. Sales of lumber, building materials and hardware were down slightly. Losses by the latter groups, of course, were because of government restrictions on the sale of merchandise.

H. V. MADSEN has sold his nursery and home at Elmhurst, Ill., and has moved to Pasadena, Cal., where he is now with the park department.

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The Nurseryman's Forte: To Make America More Beautiful and Fruitful

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Tax Return This Month

When the withholding, or pay-as-you-go tax went into effect July 1, it was immediately applicable to those persons deriving their income as wages and salaries, with the exception of agricultural workers, domestic servants and a few other classes. By September 15, however, businessmen who did not come under the withholding provisions of the law must file a form known as the declaration of estimated income and victory tax and make payment accordingly. Returns at that time are likewise required from those persons who received more than a specified sum in wages or salaries or who received outside income in addition.

Already most taxpayers have received copies of form 1040-ES, on which the September 15 estimate is to be filed. With it they received copies of a table which may be used in estimating the September 15 payment. Persons having a net taxable income of more than \$10,000 can obtain from the collector of internal revenue copies of a taxpayers' work sheet for more definite estimates.

Who Must File.

An estimate must be filed by all single persons, including family heads and married persons not living with husband or wife, if (a) total income from wages or salary will exceed \$2,700 in 1943 or was more than \$2,700 in 1942, (b) 1942 income was over \$500 and was more than it will be in 1943, (c) income from dividends, profits, rents, etc., was over \$100 in 1942 and total income was over \$500, or these figures will be exceeded in 1943.

Married persons must file estimates if (a) total income of husband and wife will exceed \$3,500 in 1943 or exceeded \$3,500 in 1942, (b) their combined income was over \$1,200 in 1942 and will be less than that in 1943, (c) their combined income from dividends, profits, rents, etc., was over \$100 in 1942 and total income for 1942 was more than \$1,200, or such income will exceed \$100 in 1943 and either spouse expects to have more than \$624 income this year.

Amount of Payment.

When the total tax for 1943, including victory tax, has been determined, then deduct the tax payments made March 15 and June 15, the five per cent victory tax withheld during the first six months of 1943, and the total amount estimated to be with-

held from July through December under the twenty per cent withholding tax. If the estimated tax liability exceeds the deductions, the excess must be paid in two installments—one-half on September 15 and the other half December 15.

Many taxpayers will find that the amounts already paid or to be withheld will exceed their estimated 1943 tax. These persons will not have any payment to make September 15 or December 15.

Application of Payments.

The tax payments made March 15 and June 15 are applied against the 1943 tax. If the total tax on 1942 income was less than the income and victory taxes for 1943, there is a partial or total cancellation of the 1942 tax. All 1942 tax bills of \$50 or less are completely canceled. If the 1942 tax was greater than \$50 the cancellation is seventy-five per cent of the tax or \$50, whichever is greater. The uncanceled portion must be paid one-half March 15, 1944, and the other half March 15, 1945.

If the 1942 tax was greater than the 1943 income and victory tax, the 1942 figure is substituted for the 1943 figure, and the cancellation of \$50 or seventy-five per cent, whichever is greater, is applied to the original 1943 tax. If this substitution of the 1942 tax takes place, the liability for making payments September 15 and December 15 will be based on the excess of the 1942 tax over the payments and taxes withheld this year.

May Readjust Estimates.

If the taxpayer finds later that the original estimate was either too high or too low by a substantial amount, a new estimate may be filed December 15 and any payment made that date will be adjusted accordingly. The same procedure may be followed in 1944. That is, quarterly adjustments of the estimate may be made, if necessary. Increases in pay, unexpected profits or dividends, bonuses, etc., for example, might necessitate revisions in estimates.

A penalty is provided for estimates too far out of line with actual 1943 income. If the estimated tax is not at least eighty per cent of the tax figured exactly for the final return filed in March, 1944, the taxpayer is liable to a penalty of either six per cent of the difference between the estimate and the actual tax, or the full amount of the difference be-

tween the estimate and eighty per cent of the actual tax, whichever penalty is less.

On or before March 15, 1944, every taxpayer, whether he files an estimate September 15 or not, must file a complete and exact return for the year 1943, and if he owes any additional tax it must be paid by that date. In case he paid too much tax in 1943 he will be given a credit or a refund.

Special Treatment for Farmers.

Because of the hazards and seasonal nature of the business of farming, special treatment is allowed to persons who derive at least eighty per cent of their gross income from farming.

First of all, they are not required to act as tax-collecting agents by withholding part of the wages of their help, as are other businessmen. The farm laborer does not have part of his wages withheld as payment on his income tax, but will file a return in March, 1944, unless the amount of his income is such as to bring him into the classification of persons required to make payment September 15 of this year.

The farmer, himself, is not required to file an estimate of income and tax payable until December 15. Even at that late date the farmer is allowed extra-wide latitude, for while other persons must pay a penalty if their estimate is too small by more than twenty per cent, farmers are allowed a margin of error in their estimates of thirty-three and one-third per cent, or one-third, before becoming liable for the penalty of a fine.

However, farmers who wish to do so may file a declaration September 15 and make a payment of half the estimated 1943 tax, less payments already made on their 1942 income.

NEW PLANT PATENTS.

The following plant patents were issued last month, according to Rummel, Rummel & Davis, Chicago patent lawyers:

No. 594. Rose plant. Charles Mallerin, Varces, France, assignor to the Conard-Pyle Co., West Grove, Pa. A new and distinct variety of rose plant, characterized as to novelty by its vigor of growth, the form and color of the bud, the size and number of petals and the purity of the white color of its flowers.

No. 595. Rose plant. Charles Mallerin, Varces, France, assignor to the Conard-Pyle Co., West Grove, Pa. A new and distinct variety of rose plant, characterized as to novelty by general habits of growth, hardiness, color and form of flowers throughout their different stages of development and color combination of foliage.

No. 596. Rose plant. Charles Mallerin, Varces, France, assignor to the Conard-Pyle Co., West Grove, Pa. A new and distinct variety of hybrid tea rose plant, characterized as to novelty by its habits of growth and form and the novel color combination of its blooms in their various stages of development.

No. 597. African violet. Peter Ruggeri, San Francisco, Cal. A variety of African violet plant, characterized particularly by its white flower.

Southern Association Meets at Atlanta

Last year only the executive committee of the Southern Nurserymen's Association met to transact the organization's business, the convention of members being suspended because of wartime transportation difficulties. Current problems facing the industry this year seemed to justify a gathering in order to obtain enlightenment and discussion on these subjects. Atlanta, Ga., was chosen as a central point to minimize the travel requirements of members, a considerable number of whom gathered at the Atlanta Biltmore hotel for the sessions that filled the two days of August 30 and 31.

On the evening of August 29 was held a short meeting of the Georgia State Nurserymen's Association, with President Charles N. Morse in the chair. Early arrivals gathered subsequently that evening for a smoker, at which acquaintances were renewed and informal expressions regarding the outlook were exchanged.

When President Tom Dodd, Semmes, Ala., had called the convention to order, Monday morning, August 30, invocation was given by Dr. Pierce Harris, pastor of the First Methodist church, Atlanta, and then Harry Armstrong, music director at the same church, led the members in group singing.

The mayor of Atlanta, William B. Hartsfield, was introduced by Cobb Caldwell, of that city, and welcomed the visitors to the southern metropolis. Response was made by James G. Bailie, Augusta. Charles N. Morse, president of the Georgia State Nurserymen's Association, added his greetings.

Announcements for the arrangements committee were made by W. L. Monroe, Atlanta, who received due credit for the work of the committee which he headed.

Tom Dodd offered a brief presidential message, in which he referred to the difficulty in maintaining nursery operations and service to customers in view of the great loss of able-bodied men to the army and war factories. He has had full knowledge of this situation, because three of his sons are in service.

Roll call of members and visitors and appointments of special committees by the president followed the report of the secretary-treasurer, W. C. Daniels, Charlotte, N. C.

Sage advice came from Henry B. Chase, president of the Chase Nurseries Co., Chase, Ala., on "Keeping

Our Feet on the Ground." Mr. Chase presented a chart showing prices on fruit trees from 1906 to 1923 and on popular ornamental shrubs from 1906 to 1942, indicating the sharp increases due to demand and short supply for ten years following the first world war and the sudden sharp fall in the depression years. The rise noted in 1942 presaged similar conditions to come, but he cautioned against overproduction leading to another depression.

Hubert Owens, head of the landscape department at the University of Georgia, told the members about the information available to nursery-



M. L. Harkey.

men at the University of Georgia. By means of a mimeographed bulletin distributed to florists and nurserymen of the state, Mr. Owens and Mr. Bowden have sought to keep those trades informed of current developments. Still closer contact is possible through use of the data obtainable from the university on request.

"Chemurgy and Agriculture" was the subject of H. N. Bruner, Clemson, S. C., of the agricultural extension division of the DuPont Co. His account of the developments in chemistry which have been of benefit in agriculture in various directions showed how important were those achievements. Mr. Bruner interestingly illustrated the use of plastics and other chemicals by comments on numerous DuPont products displayed on a table before his audience.

Opening the afternoon session,

Paul W. Chapman, dean of the college of agriculture at the University of Georgia, delivered a forceful address on the nurserymen's opportunities in developing the victory garden program for better nutrition in their communities and for food supply to be needed for some years after the war's conclusion, in view of promised shipments to the occupied countries.

"Nursery Pests and Control Methods" was discussed by Charles H. Alden, Georgia state entomologist, who told of insect pests and diseases in current seasons in the southeast and the latest control methods for them.

"Various Methods of Plant Propagation" was the subject of a talk by Prof. R. L. Keener, acting head of the department of horticulture at the University of Georgia. Professor Keener distributed an 18-page mimeograph on southern ornamentals and their propagation.

The afternoon concluded with a round-table discussion led by J. B. Wight, Cairo, Ga., in which a diversity of subjects were touched upon.

C. R. Smith, Concord, Ga., urged care in planting for postwar demand, predicting strong call for fruits and better ornamentals, and advised growing according to needs of one's local market. M. L. Harkey, Charlotte, N. C., suggested charges be made for professional advice on garden maintenance and similar matters, which he has found accepted by his customers.

Richard H. Jones presented a questionnaire on items relating to costs and their increases in the past two years. The discussion that developed revealed that more thought is being given to the subject for its recognized importance.

The banquet Monday evening, at which Donald Hastings was toastmaster, was followed by unusual entertainment. Square dances were performed by the Promenade Club of Atlanta with special music, and afterward the club members taught the square dances to the nurserymen.

Opening the Tuesday morning program, Richard P. White, executive secretary of the American Association of Nurserymen, spoke on "Wartime Regulations of the Nursery Industry—Past, Present and Future." This was a larger subject than time permitted him to cover fully, but he indicated the trends of

thought in Congress and among the bureaus at Washington and gave indications of what might be expected in the months ahead.

Dr. White reviewed nurserymen's supplies, indicating some easier conditions except in kraft paper and lumber. He predicted an easier labor situation and said the recent manpower statements had not changed nursery employees' status as regards selective service.

Government landscape contracts formed the theme of remarks by Richard H. Jones, Nashville, Tenn., who has had much experience with them. He pointed out the necessity of careful estimating, capable supervision, improvement in methods and separation of this type of business from regular nursery operations, declaring even then losses were as frequent as profits because of varying conditions and unforeseen causes.

F. R. Kilner, editor of the *American Nurseryman*, in speaking on "Nursery Advertising," mentioned the interest demonstrated in this subject by a larger number of nurserymen than hitherto. Gasoline rationing and truck regulations have made personal contact with customers more difficult, and many nurserymen have in the past season undertaken something in the way of a mail-order business. In some cases, this has been for the development of local trade, previously served personally, and in others it has involved the initial publication of a retail catalogue. He urged a more informative type of retail catalogue to guide the ornamental planting of the millions of new prospective customers to be gained from the victory garden campaign. He dwelt on the importance of the themes of the nurseryman's individual service and the quality and character of his stock so as to personalize the advertising, so to speak. Reliance on price alone, without reference to the individuality of the business, leaves out the most important phases of advertising.

Another practical talk was that by Roy Bowden, of the University of Georgia, on "New Avenues of Developments Suggested for Nurserymen." He mentioned perennials, lilies and other bulbs, azaleas for forcing and other crops as opportunities for southeastern nurserymen, as well as garden maintenance and tree trimming.

In the concluding business session, W. L. Monroe, chairman of the educational committee, moved the appointment of a committee to act on Prof. Hubert Owens' recommendation the preceding day, that correlated arboreta be established at state

universities, if no other southern arboretum could be established.

W. A. Easterly, Cleveland, Tenn., of the necrology committee, reported the death of Mrs. Richard Howell last year.

Henry B. Chase, reported that Lee McClain, Knoxville, Tenn., chairman, regarded the work of the trade barriers' committee completed and suggested that the committee might be discontinued. John Fraser, Huntsville, Ala., added a vote of thanks to Mr. McClain for his six years' work.

Henry Boyd, McMinnville, Tenn., chairman of the publicity committee, reported on plans to issue an association bulletin to be sent to the boys in service.

On the report of the nominating



Tom Dodd.

committee, M. L. Harkey, Charlotte, N. C., was elected president; Henry N. Boyd, vice-president, and W. C. Daniels, secretary-treasurer for the nineteenth year. Henry Homer Chase was named chairman of the executive committee. The time and place for the next meeting were left to the executive committee.

The convention concluded with a silent prayer for associates in the armed forces.

NATURAL PEST CONTROLS.

With many spray materials becoming more and more critical because of priorities for war industries, scientists are bending more effort toward the development of substitute insecticides and the use of natural agents, such as parasites and disease spores, to combat injurious insect pests.

A total of 526 colonies of a parasite of the Oriental fruit moth was liberated during the past year through the peach-growing areas of New York state. This is the largest

number of colonies ever liberated by the station workers and was made possible by improvements in the methods of rearing parasites in the station laboratory. "Fruit counts in western New York peach orchards indicated that injury by the fruit moth was not greater than five per cent," states a report. "Parasitism ranged from forty-eight to ninety per cent throughout the Hudson river valley and western New York, the lowest percentages of parasitism occurring in experimental orchards in which no mass liberations were made during the season."

In studies on the control of the Japanese beetle, parasites were liberated and spores of the milky disease of the grubs disseminated in heavily infested areas of the Hudson valley and on Long Island as well as in isolated areas in other parts of the state. Thus far the area treated is too small to have any noticeable effect on the Japanese beetle population in the state, but the results are encouraging as an indication of what may be expected from biological control measures.

The effect on the codling moth infestation of an apple orchard by banding the trees and collecting the larvae every ten days, as well as collecting and removing from the orchard all dropped fruit, was to reduce the number of larvae per tree from 441 in 1939 to 174 in 1941, while the percentage of wormy fruit in the orchard dropped from 73.9 in 1940 to 9.5 in 1941. For the past three years this orchard has received only such sprays as were necessary to control scab.

ALAN W. MORTEN will conduct his nursery business under the name of the Valley Heights Nursery Co. The nursery is on Hulton road, Plum township, adjoining Oakmont, Pa.

THE property on which are located Northbrook Gardens, Northbrook, Ill., has been sold, and all plants and shrubs, together with machinery and supplies, must be removed by December 1, adding to the burdens of W. F. Christman, secretary of the American Peony Society.

RUSSELL HAM has purchased the Blue Valley Nurseries & Orchard Co., Blue Rapids, Kan., which was developed by the late James Nevins, who died the beginning of this year, and also by his father and uncle. Mr. Ham will conduct the business under the name of the Blue Rapids Nurseries & Truck Garden.

Propagating Difficult Plants

By H. J. Hohman, Kingsville Nurseries

In discussing practical ways to increase the better kinds of trees and shrubs, I shall start with the propagation, during January, February and March, of plants that are known to be difficult to propagate from field plants during the summer months. To mention a few of those I have in mind, I should like to start with *prinsepia*, *corylopsis*, *ceanothus* and *chaenomeles* hybrids, and I can also add one evergreen *berberis*, *stenophylla*. The method I am about to describe makes it easy to root these and many others of the rarer kinds of plants that are so seldom listed in our nursery catalogues.

In late fall (November) dig up plants from the field. Pot these in containers just large enough to accept the roots, and make certain that they are not overpotted, as they will need spraying to start new growth in January. Overpotted plants generally make a weak growth, while a pot full of roots will produce strong growth. Place these on a bench in the greenhouse about January 1, and start spraying the tops. When new growth has made about five to six inches, on *prinsepia*, the wood is then just about right for cuttings. We generally strip off the upper shoots with a heel; this forces the lower eyes to start growing for the next crop of cuttings, which are usually stronger. The stripped shoots are then made into two cuttings; the top cutting is cut just below a node, and the base end is left with the heel. In about four weeks they are ready to pot up if they have had a little bottom heat.

The same method is used in making cuttings of *corylopsis*. With *chaenomeles*, *ceanothus* and *Berberis stenophylla* we do not strip the cuttings, but simply cut back, leaving an eye or two for making new growth. As new growth is made, additional cuttings are made. By mid-April to May, we have as many as twenty-five to fifty plants started from one original plant, because we also take tip cuttings from the new potted cuttings as fast as they make growth. You can readily see how fast stock of a rare plant can be built up by using this method. There are many rare plants that can be easily and profitably handled this way, and if you do not have any of them in the field, simply make a purchase of a few and get them started.

Also during the winter months we

make cuttings of hemlocks and dwarf spruces, as well as English and other hollies except *opaca*, the American holly. This holly we always start off in early July, because at that time the wood roots readily and a stand of ninety to ninety-five per cent is not unusual. The wood used in making the hemlocks and spruces is taken from the leftover scions cut for grafting. Simply strip off the small side lateral shoots with a heel, and you will find that there is little effort in rooting them. These cuttings will only be about two or three inches long, but they are the most successful in rooting. Should you not do

field. Never cut the wood when it is frozen.

In handling the bench for cuttings, here are a few pointers. Perfect drainage is most necessary; therefore, instead of having closed bottoms, use a mesh wiring with quarter-inch squares. Cover this with a thin layer of sphagnum moss so that the medium in which you are going to place the cuttings will not run through: The medium should by all means be very porous so as to allow constant spraying without danger of holding water. From experience, results have proved that straight sharp sand is the finest medium to use for rooting all plants. This includes hollies, azaleas, andromedas and any other of the *ericaceae*. Where we feel that it is necessary to use peat, as in the case of leaf bud cuttings of rhododendrons, we place the peat below the sand so that when roots have started they go into the peat to make up the little ball of roots we want them to have when removing them from the bench. This gives us perfect control for constant spraying of the cuttings without danger of having them over-soaked. Moisture and warmth are two essential necessities.

It is during these winter months we make our piece-root cuttings. This is one of the best ways to propagate plants, and there are many that can be increased by this method. Liliacs, *chaenomeles*, *pavias* (dwarf horse chestnuts), native azaleas, *Clethra alnifolia rosea*, *Amelanchier laevis rosea* and many other plants can be successfully propagated by this method, and you have them on their own roots. It is a quick way to build up a stock of blueberries. We select days when the ground is not hard frozen to dig up surface roots around the plants of which we want to propagate the roots. It is the surface root that you want, and it is not necessary to dig out the entire plant. After we gather these long surface roots, some of them being as long as eighteen inches or two feet, they are taken indoors and cut into small pieces about two and one-half inches long. The thickest end or the part taken from nearest the trunk of the plant we call the top and always keep this end up. When you are cutting the small pieces, try to follow out the root and keep these ends together. When placing them in the medium these ends are always placed nearest the



Henry J. Hohman.

any grafting, then the thing to do is to go into the field and cut the same wood you would use for grafting, which would be well ripened wood from the preceding year's growth, and even as far back as 2-year wood, for it is the lateral small shoots that you are going to work with, and the cuttings are made, as I have stated, by stripping off the side laterals. With the English hollies and other hollies, it is not necessary to have heels; therefore small regular cuttings are made from the preceding year's growth and are cut just below the node. Let me mention here that it is not necessary to bring into the greenhouse plants of hemlocks, spruces and hollies for potting up to force the wood, because the wood can be cut on any mild day right from the

top of the medium because they will shoot new sprouts quicker. The tops should be just under the medium one-eighth inch. If we plan to pot them up after growth is made, we place them in sand only, but if we are limited for space and leave them in the medium until they can be planted out in frames with glass covering, in late March, we place them in sand with a peat bottom. They will move with a good ball of roots and handle fairly easily.

There are many nurserymen who do not have a grafting case yet have a small greenhouse, and it is to these nurserymen that I should like to give the following propagation method. Many fine trees, such as fastigate ginkgos, fastigate maples, flowering crabs, pyramidal oaks, etc., can readily be grafted without the aid of grafting cases. All that is necessary is to have rootstocks potted up early in the fall so there is a good pot full of roots to encourage growth on the rootstocks along in February and March. These plants can then be cleft-grafted, waxed, wrapped with cut-open 2-pound bags and placed on the open bench, partially shaded. After the cleft graft is made, the entire scion is covered with a thin wax. Then cut the base off the paper bag and slip this over the scion. Fold it over so that after you have made the wrapping it will be fairly snug around the scion. Tie the wrapping just below the point where the scion is attached to the stock plant, to hold it in place. Do not tie the top because you would prevent the new growth from the scion from coming out into the light once it has started. Leave the bags or wrappings on until there is new growth made about two to four inches long; then the wrapping can be removed and the plant kept shaded for a couple of weeks.

Grafting of a single-eye scion is another way to increase production of plants that are scarce and it is impossible to secure the usual size of scion. The eye is cut off the stem, about one-half inch below the eye and three-quarters of an inch above the eye, just as though you were cutting a budding eye except that you cut deeper so as to have a thickness of about one-sixteenth of an inch of wood attached. This small one-eye scion is handled the same as a veneer graft, and the only thing necessary is to have the stock and the scion about the same thickness so as make the cambiums meet on both sides.

Piece-root grafting is also done during February and March, and many plants can be increased by this

simple method, such as lilacs, chaenomeles, flowering cherries, flowering crabs, etc. By using small piece-roots, usually about two to three inches long, you can get each plant on its own roots, which is the thing we aim for.

Lilacs start well on *Ligustrum ovalifolium* or *Syringa henryi* Lutece. We like to work them on Lutece because the root is fibrous and soft and lilacs certainly get a good start on its roots.

Chaenomeles can be grafted on apple root, which quickly goes off after the plant is once bedded and its own roots are started. They are also grafted on quince roots, and this can be any quince you have on hand.

Flowering cherries and crabs do best on roots dug up from your flowering trees in the nursery row. Wild seedlings are all right, but you profit most by using roots from growing trees because they are quicker to act and are much cleaner. To secure these you simply dig around your trees near the surface and select roots that are about pencil size.

The usual way of handling these is to bury all but the very tops of each in a sand bin, but I have found that if you pot them in 2½-inch pots, plunge them in a frame outside, cover the pots with about one and one-half inches of sand and peat, place a glass over them and shade, you will have the finest kind of material for lining out and you do not have to rush in early April to get them lined out. Being in pots, they can be planted at your own convenience.

The outside grafting is done at the end of March or in early April. At this time the weeping cherries on standards are worked. Cotoneasters on standard stems of *Crataegus cordata* are rather unusual and quite useful. Cotoneasters show up well this way, both in flower and berry. *Malus sargentii* on standard apples is another attractive standard form, and there are many others. One that should be mentioned is *Lonicera syringantha* top-worked on *Lonicera tatarica*. This is the one real way of handling this fine low-growing shrub so that it can really display its loveliness.

At this time the varieties of flowering cherries can be top-worked, only it is best to do this about six inches from the ground so that you have a uniform growth in the stem of the tree you are producing. Dogwoods, pyramidal oaks and pyramidal ginkgo also work well by grafting on plants in the nursery row at that time. The scions must be waxed and wrapped

with paper bags with the ends open. These are left on until new growth starts shooting out the end of the bag. It is best to remove the bags on a cloudy day to keep from burning the new growth. There is really no limit to the kinds of trees and plants that can be grafted at that time.

Work a few hardy ivies on standards, using *Acanthopanax pentaphyllum*.

The budding of Japanese maples is successful if done about June 15 to 20. At that time both eyes and stock work perfectly. This is the quickest method of working Japanese maples to gain size. In one year the plant is generally eighteen to thirty inches in growth, and the second year you have salable plants, two to three feet, depending upon the variety worked.

Cuttings of azaleas and andromedas are taken at the end of June and in early July, followed immediately with *Ilex opaca*. When *opaca* is taken at that time you are pretty certain of a fine stand. A well drained sand bench and plenty of moist atmosphere and warmth are the essentials. If no greenhouse is available, use a well closed frame outside. Use burlap all around the edges of the frame to keep warm moisture in, and shade well. Constant spraying, at least three times each day, should be done, as this quickens the rooting. Lilacs root readily if taken about June 25 to July 5. At that time the wood is in perfect condition. Use sand to place them in.

Budding is done in summer months, and it pays well to select the tree from which you are going to cut the budding eyes. Do not cut at random, but watch the trees and make a good selection. For instance, some pink-flowering dogwoods are a deeper pink, and you should by all means select from those trees.

To know when budding of certain plants or trees should be done, you must know when a plant or tree makes its principal growth and then sets itself or hardens off. The lilac is one of the first; so you would bud this early, about July. The pyramidal oak also works best in late July, and the same with *Acer saccharum monumentale*. *Acer rubrum columnare* works easily in August. The wood of dogwoods is beginning to set in late August; so you will find the budding eyes in splendid condition. Do not try to bud with soft eyes; they should be well set.

Layering is done usually in August, and here is a method for producing plants that rarely fails. Rho-

dodendrons, Ghent azaleas, *Davidia involucrata* and any plant that is difficult to propagate always come readily by layering. A compost of decayed leaf matter with one-third sand is a splendid medium. Simply make a slit half through the stem you want rooted and pin this down with a prong. In two years you have a fine heavy plant ready to remove from the stock plant.

Leaf bud cuttings of rhododendrons and many other plants are being used on a large scale. Usually a medium of about one-half sand and one-half peat is used, although I still like to use the sand on top and the peat beneath. Sand roots them more quickly and the peat carries them along until we can get to rehandling them. The leaf bud cutting is made by slitting or cutting out an eye from the stem with a leaf attached. The cut is made starting one inch below the eye and cutting into the stem so that you have about one-sixteenth-inch thickness of wood left intact with the eye, bringing your knife out when you are about one-half inch above the eye. The wood should be just about ripe and set. Old or hard wood does not work well and soft wood should not be used.

The rooting of difficult plants is also accomplished by using a mechanical humidifier. This is generally done in a small greenhouse or in a section that has been partitioned off, so that the constant vapor will cover all cuttings placed in the medium.

Cyrilla racemiflora is an extremely hard plant to root from cuttings, but with the mechanical humidifier I have seen perhaps eighty per cent of the number taken rooted well under this system. Yet it seems impossible to root these under ordinary methods. Rhododendrons and many other hardwood plants root readily. But the difficult part comes after they are rooted. Being under this softening condition for a few weeks makes them difficult to handle after potting up. For instance, with *cyrilla*, out of 140 heavily rooted cuttings we were able to bring through only twenty-nine strong healthy potted plants. The others just would not take the condition they were placed in after being subjected to several weeks of softening. So if you can learn to handle the plants after they come out from under the humidifier, here is a method that is sure-fire for rooting.

Tip cuttings are best to take of dogwoods, viburnum and *chionanthus*, and these work well in July and August. Make each cutting only about two and one-half inches long, cutting below the node.

SEES SHORTAGE IN SOUTH.

In a recent bulletin of the department of horticulture of the University of Georgia, Roy P. Bowden urges nurserymen of the southeastern states to propagate stock in anticipation of a postwar shortage. He says:

"Already the shortage in good planting stock is beginning to show up in the nurseries in the south. This is a condition that we want to avoid in the future. This can be only a temporary condition provided the nurserymen grasp the opportunity to build better stocks of plant materials at this time. The nurserymen who were doing business in the southeast following the last war have not forgotten the deplorable condition of the supply of plant material at that time. Unless steps are taken immediately to prevent a shortage of plant materials in the next few years there

men have a great opportunity to devote most of their time to the maintenance of these properties, thereby retaining to a great extent their average income, if not realizing an increase over preceding years.

"As much time as possible should be devoted to plant propagation in order to have a reserve supply at the end of hostilities. The wise nurseryman will not only produce a sufficient quantity for his own use, but will be in a position to supply other demands at good prices. The production of lining-out stock in the southeast is much below the amount used. We should at least produce our own supply of all materials, and, in addition, supply the nurserymen in the north and east."

CONFER IN FLORIDA.



Confer in Florida.

The snapshot reproduced on this page is of interest because it includes three men anyone would like to know, not only for their exhaustive knowledge, but their interesting careers as well. On the left is Dr. David Fairchild, for many years with the United States Department of Agriculture, whose books on his plant explorations have fascinated many thousands. If you have not read "The World Was My Garden," you still have a treat in store. In the middle is Henry B. Chase, president of the Chase Nursery Co., Chase, Ala., whose authorship and exploratory enterprise are known to some nurserymen because his brother published in booklet form a few years ago the letters which Mr. Chase wrote while on a cruise around the world with Mrs. Chase. On the right in the picture is Glenn F. Bates, proprietor of Sandy Acres Nurseries, Fort Lauderdale, Fla., where the photograph was taken. Mr. Bates is a disciple of Dr. Fairchild and has a wonderful collection of tropical fruiting and ornamental plants.

GUYTON SUCCEEDS BELL.

Dr. Thomas L. Guyton, Harrisburg, Pa., has been appointed director of the state agriculture department's bureau of plant industry, effective September 1.

Secretary Miles Horst advanced Dr. Guyton, former chief of the bureau's division of entomology, to the new post as the successor of R. Harry Bell, who retired voluntarily after sixteen years of service with the bureau.

Dr. Guyton has had more than twenty years' experience with the department.

E. F. R.

will be an enormous economic loss in our section of the country.

"We already realize the enormous number of unkempt properties that have come into being in the past eighteen months. This carelessness on the part of the property owners, as well as the nurserymen, will mean a serious loss in property values. This loss may amount to as much as five to twenty-five per cent of the real estate value. The southeast cannot afford such a reduction in property value. A ten per cent reduction would be sufficient to cause a crisis in the economy of the nation.

"The nurserymen of Georgia and other southeastern states will be largely responsible for any condition of this type to come into existence. It is the duty of every commercial nurseryman to make a serious effort to encourage property owners to maintain their holdings as near a perfect condition as possible. Of course, everyone realizes the shortage of labor at this time, but with the reduction in new plantings the nursery-

Association Outings

NORTH JERSEY OUTING.

The annual outing of the North Jersey Nurserymen's Association was held for the fifth time at Russell Jacobus' Perennial Nursery, Montclair, N. J. Between fifty-five and sixty members and guests stayed most of the day to listen to political and scientific talks, feast and drink, play games and exchange ideas.

Charles Hess, president, who was recently elected member of the state board of agriculture, first called on Frank S. LaBar, president of the American Association of Nurserymen. He pulled no punches, and after he finished, everybody realized that nurserymen have a lot to think about and much to do in order to take their proper place in the postwar economy.

Chairman Hess introduced Richard K. Schmidt, survivor of the tough battles of Guadalcanal. Dick is a member of the marine corps. He was trained as a gunner and after accounting for himself with honor he was made a warrant officer. He is the son of Carl L. Schmidt, of Allendale.

Lieut. Brian W. Flavelle was announced as missing in action after leading a group of Liberators over the Ploesti oil fields, in Rumania. He and his crew had previously volunteered as a lone raider to bomb the Messina docks from which supplies had been coming to Rommel. He also led a group in the first blasting of Rome. He is the son of William L. Flavelle, secretary of the organization. All hoped that he might later be reported alive and well.

Willard H. Allen, New Jersey secretary of agriculture, talked on "The Outlook in the Near Future for New Jersey Farmers." The conclusion reached was that it was not bright.

Herbert Voorhees, president of the New Jersey Farm Bureau, took the stand to explain "Farm Bureau Problems of the Day." It was with no little satisfaction that he could report success in passing the bill over Governor Edison's veto taking growing nursery and farm crops out of taxable assessment. Organization for protection would solve most problems, he thought.

"Expected Improvement in the Fertilizer Situation," the subject taken by A. C. Hornberger, of the American Agricultural Chemical Co., referred not so much to an improvement in the production and distribution of fertilizer materials as to clarification of the governmental regulations governing their use and sale.

FPO 5 Rev., 4-page sheet released July 3, 1943, by the War Food Administration, came in for a great deal of criticism. Because of its length it cannot be intelligently presented in this article, but those interested in the delivery and use of fertilizer may obtain copies from the Government Printing Office or perhaps from local county agents.

Richard B. Farnham, extension specialist in floriculture at the state experiment station, discussed the topic, "More Effective Use of Peat Moss by Nurserymen." Mulching certain crops, where plants are sufficiently able to stand above the mulch material, was recommended as good nursery practice, especially when lack of help made it impossible to cultivate properly and where plenty of mulching material is available.

Use of a Planet, Jr., seeder for soil treatment was discussed by Mr. Farnham also. This device was conjured up by him and George C. White, Rutherford, N. J., and is explained in Mr. White's talk on "The Control and Prevention of Diseases and Insects Found in the Soil," published in full on the opposite page.

Leslie M. Black, poultry specialist of the extension service, concluded the day of agitation and education by leading us into some of the mysteries of poultry anatomy and then demonstrated the proper way to caponize a cockerel.

Retiring from the spell of oratory and the festive board, one wandered through the beautifully laid out perennial gardens of the Jacobus' nursery, discussing various problems relating to the soil, or entered the contest with horseshoes.

The winning team in shoe pitching

was J. W. Gearhart, Caldwell, and Harold A. Ferguson, Montclair. G. G. Nearing, Ridgewood, and O. S. Link, Montclair, took second prize. Conrad Maarschalk, Jr., Clifton, and Herman Rohsler, Garfield, captured the booby prize. William L. Flavelle, Sec'y.

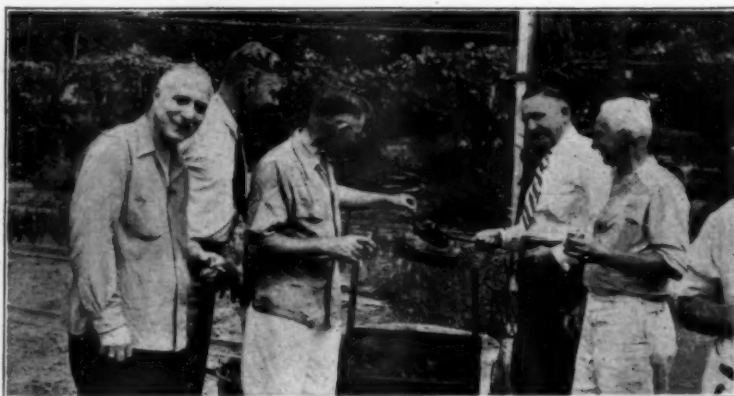
KENTUCKY PICNIC.

The picnic meeting of the Kentucky Nurserymen's Association was held at Butler memorial park, Carrollton, Ky., August 11. The weatherman favored us with a bright warm day.

Herbert Bunton, Bunton Seed Co., Louisville, and Nick Verburg, Nick's Nursery, Anchorage, were in charge of arrangements and were applauded for their splendid work. They provided plenty of liquid refreshments and excellent food—fried chicken for lunch and fresh river fish, with all the trimmings, for dinner. Games and contests for the entertainment of the nurserymen and their families had been arranged by Herb Bunton. Useful tools and supplies were given as prizes by the Bunton Seed Co.

The spirit of the group would warm the hearts of nurserymen everywhere. There was little complaining of the hardships caused by labor shortages; lack of gasoline, tires, tools and supplies; weather conditions, or the many other handicaps facing nurserymen today. Underneath the pleasant greetings one could feel the spirit of true fellowship to a greater degree than in past years. Regardless of the length of the war and the difficulties of postwar adjustment, if the spirit of all Americans could compare favorably with that at the picnic, we could be assured of the future of this nation as a pleasant place in which to live and work.

Howard G. Tilson, Sec'y.



New Jersey Secretary of Agriculture Passes Out the Broiled Chicken.
Frank S. LaBar, Leslie Black, Charles Hess, W. H. Allen and Russell Jacobus.

Control of Diseases and Insects in Soil

By George C. White

It sometimes seems to me that we nurserymen do not take advantage of the fine work that is being done in insect and disease control by the experiment stations and agricultural research projects in the different parts of the country. Often after years of work bulletins are published, and but little attention is paid to them.

One of the fields in which much research work has been done is that of soil fumigation and the application of insecticides to the soil. Surely it has occurred to many of us that if we could eradicate in a large measure the larvae of insect grubs in the soil before they attain a stage of development where they take to wings and lay hundreds of eggs, thus insuring future troubles for the growers, a great step forward would have been made.

In the past few years a few of the more progressive growers have used various soil fumigants and insecticides, such as chloropicrin and methyl bromide, both of which have to be handled with great care. Chloropicrin has been used both in the greenhouse and outdoors. Because of the great shortage of labor, many growers have turned to its use to save them the work of taking out the old soil from their benches and bringing in new soil. This fumigant not only controls insect pests in the soil, but nematodes and fungi also, and has certain weed-killing properties.

The apparatus for use with chloropicrin at present available will no doubt be immensely improved after the war is over and materials become available for the design and manufacture of other equipment. Machines for the application of other fumigants or soil insecticides will also, no doubt, become available soon after the conclusion of hostilities.

A simple and efficient type of applicator for use with chloropicrin or other soil fumigant may be made by converting a Planet, Jr., or similar seeder with the use of a gallon glass jug. This jug is fitted with a screw cap and with two lengths of copper tubing pierced through the cap. When the bottle is turned upside down a piece of $\frac{1}{8}$ -inch o. d. copper tubing should go right up to what will then be the top of the bottle.

Talk by George C. White, of Bobbink & Atkins, East Rutherford, N. J., before the North Jersey Metropolitan Nurserymen's Association, August 12.

A piece of $\frac{3}{16}$ -inch tubing should run from the inside of the cap downward toward the ground. Immediately ahead of this discharge tube there should be a shoe to open up the ground to a depth of five inches or so, and immediately back of the tube another shoe should be placed to cover up the fumigant as the seeder is pushed along.

The $\frac{1}{8}$ -inch o. d. air tube should be bent upward where it projects outside the metal cap. A pet cock on the discharge tube will be found useful to regulate the discharge and also to shut off the fumigant when actual operations are not going on.

Many of us look upon methyl bromide as purely a fumigant for use in enclosed fumigating chambers or vaults. However, it has many other applications. A great deal of experimental work has been done with this material, and it has been used by nurserymen in other parts of the country for the control of soil insects and organisms. Where prize cattle or horses are kept in relatively limited quarters, it has been found that by treating the small paddock or enclosure with methyl bromide diseases which these animals had previously got from the soil and taken into their stomachs during feeding have been largely eliminated.

I know that a great many of you are going to be surprised when I tell you that you can control wireworms, Japanese and Asiatic beetle grubs, centipedes, mole crickets and other insects which attack your crops, merely by watering certain materials on the surface of the ground, and this can be done without damage to the growing crops.

A soil treatment has recently been developed, using ethylene dichloride as one of the ingredients. By mixing one gallon of this material, which is known as Terrafume E with 100 gallons of water, and merely watering this solution on your beds or frames at the rate of two gallons per square yard, splendid control can be obtained of Japanese, Asiatic and other beetle grubs. The time to apply this material in this area is mid to late September, after the flight of the beetles is over and after the eggs which have been laid during the summer period have hatched into grubs and the grubs are relatively close to the surface.

The eradication of a great percentage of grubs will save the roots of

many of your plants from the ravages of these pests, which feed on the roots all during the fall, spring and early summer, until they would normally emerge as beetles.

Experiments have shown that practically all kinds of plants are unharmed by this treatment and that it may even be used on lawn areas without perceptible damage to the grass. There may be slight burn of some of the tips of the blades, especially if the solution is applied during a hot sunny day. This treatment should be applied on a dull overcast day.

Another worth-while result of several years' research is the ready control of wireworms, cabbage maggots, centipedes and mole crickets in the soil by the use of Terrafume D, which is a trade name for dichloroethyl ether. By mixing from ten to twenty cubic centimeters of this material with a gallon of water and sprinkling it on with a watering can, splendid results have been obtained.

In the control of wireworms in sandy loam ten to twenty cubic centimeters of this material are mixed with a gallon of water, and this gallon of solution will treat twenty feet of row. A slight ridge should be placed on each side of the row of plants to be treated, so that there is not too much runoff and the solution sinks into the plants around the roots.

In frames or beds, a gallon of this solution should be used per square yard. Considering that there are approximately 3,800 cubic centimeters in one gallon, you can see how inexpensive such treatment is.

Experimentally this material has been used by sugar beet and potato growers with excellent results.

Just in passing I might mention that this same material, dichloroethyl ether, is also used with other ingredients for injecting into ears of corn for corn-ear worm control.

The more one thinks about it, the more practical it seems to try to eliminate a great many of the insects that attack the upper growth of our plants before they can get into a stage of development where they can attack the foliage and branches.

There is still much activity in the research field on soil fumigants, and no doubt within the next few years there will be great strides made in the treatment of soils, both when the plants are actually growing and during the time when the land lies fallow.

Winter Injury Manifested Later

By E. P. Felt, Director, Bartlett Tree Research Laboratories

The effects of cold weather on trees and shrubs frequently extend over months and even years and vary greatly in different localities. Most of the trouble occurs on plants grown beyond their normal limits or in unfavorable locations. The following records are particularly interesting in revealing the value of snow protection.

Injury by the extraordinary cold weather of the past winter, approximating that of the winter of 1933-1934, began to show early in April, became more apparent the third week in May and developments were still to be noted in mid-June. Extremely low temperatures were mitigated to a considerable extent by a fairly good snow cover; otherwise, the damage would have been much greater.

The following trees and shrubs in the arboretum of the Bartlett Tree Research Laboratories, Stamford, Conn., were killed to the ground or nearly so: Chinese orange, *Poncirus trifoliatus*; Mazzard cherry, *Prunus avium*; *Ilex crenata microphylla*; a Japanese maple, *Acer argutum*; willow oak, *Quercus dentata*, and a Chinese species, *Q. variabilis*; Chinese winter hazel; two small sequoias; Chinese hackberry, *Celtis sinensis*; three small recently transplanted sweet gums, autumn elaeagnus, and Wilson and Pratt barberries. There was serious and somewhat general regional damage to ornamental box, privet and English ivy.

Others were severely damaged, killing in some cases including half of the branches. Adventitious buds started on some wood which appeared earlier to have been killed. This was probably aided by frequent rains. On peaches all the fruit buds and considerable wood were killed back, the damage being especially severe on an espalier tree. Flowering almonds and flowering cherries were badly damaged.

Paulownia was killed back apparently to the ground, though adventitious buds started late from supposedly dead branches, two shoots starting from the base of the trunk. Chinese chestnuts of several species were badly injured, one or two being killed to the ground. Several varieties of filberts were seriously damaged. A Japanese black pine, *Pinus thunbergi*, was nearly killed, there being only a little life in the top. A Japanese table pine was severely damaged. *Fagara aphanthoides* had about

half of the branches killed back. A hop hornbeam, *Ptelea trifoliata*, badly injured the preceding season by the two-spotted tree hopper, lost about half of its branches, and adventitious buds developed on limbs three-quarters of an inch in diameter. The Japanese *Fraxinus longicuspis* was badly killed back. This was true of another Asiatic species and of the Chinese *Sophora viciifolia*. A small Japanese pagoda tree, *Sophora japonica*, was killed to the ground. Several wisterias were badly injured and one persimmon was killed to the ground. Four recently set downy shadbushes were greatly retarded.

Winter injury and the effects of snow protection were marked. Several species of *taxus*, *capitata*, *hicksi* and *media*, in mid-June had some five to eight inches of new growth on the lower snow-protected branches, while the exposed buds of higher branches had started hardly at all. It is probable that these buds, although some five to six weeks late, will develop and their growth approach normal later in the season. The Greek fir, *Abies cephalonica*, and the Cilician fir, *Abies cilicica*, presented conditions practically identical with the preceding. This was true also of the tiger's-tail spruce, *Picea polita*, and a Chinese spruce, *Picea purpurea*. *Chamaecyparis obtusa filicoides* had many brown tips on exposed branches and *C. obtusa crispata* had many tips killed. The Cunningham fir, *Cunninghamia lanceolata*, showed general tip injury. A small Japanese umbrella pine was badly injured, the buds of the upper branches just starting, although those on a near-by larger tree were nearly normal.

A long series of evergreens showed marked tip injury, extending to some dying. *Juniperus depressa plumosa* had many tips dead, although the

specimen had been in poor condition for several years. Others injured were *Chamaecyparis lawsoniana allumi*, *plumosa argentea*, *squarrosa sulphurea*, *squarrosa nana*, *squarrosa sieboldi*, *thyoides ericoides*, *pisifera plumosa* and *Thuja orientalis*. The extent of the damage naturally varied. In some cases more branches or tips were dead than in others. The limbs near the ground and protected by the snow suffered little.

Several Japanese quinces, *chaenomeles*, had late blossoms on the upper branches and nearly grown fruit on the lower, indicating a growth delay on unprotected branches of about six weeks. Forsythia buds above the snow line were generally killed. Pink-flowering dogwood produced a scanty bloom.

Some injury to apple, elm and maple trees is apparent and may become more evident as the season advances. The effects of the cold winter may extend over several years. This was evident following the cold winter of 1933-1934.

SOUTHWESTERN NOTES.

Pfc. James Griesa, son of the late T. E. Griesa, Lawrence, Kan., has received the Purple Heart for World war I. On the afternoon of September 29, 1918, at the height of

Rhodos
BOTH NATIVE
AND NURSERY GROWN
KALMIA AZALEAS
Hemlocks AND Pieris
La Bars'
STROUDSBURG PA.

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Almond
Magnolias
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Rich
Ornamentals
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DOWAX is a scientific wax emulsion used to conserve the vital moisture in trees and shrubs—thereby permitting transplanting even in warm summer months. By reducing moisture loss, trees and shrubs are better able to withstand transplanting shock. It can be used on plants either in the dormant or foliage stage, and

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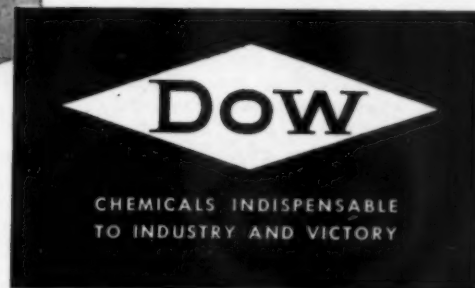
Borer attacks on shade trees are discouraged by a DOWAX application. A booklet, "First Aid to Transplanted Trees," is available on request and furnishes full information.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

New York • St. Louis • Chicago • Houston
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DOWAX

EXTENDS THE TRANSPLANT SEASON



the Argonne offensive, Private Griesa braved a hail of enemy bullets to administer first aid to a wounded captain. Said Private Griesa, "I don't know what company he belonged to. All I remember is that while I was trying to bandage him up a shell exploded and we both landed in a trench, me with a torn-up shoulder. I was sent to a hospital in Charpentier, but I was back in action pretty soon after that. And I was still at it when the Armistice was signed." Private Griesa enlisted again in October, 1942, and is now stationed at Kelly field, San Antonio, Tex., with the 84th Repair Squadron.

Perry H. Lambert, Hiawatha, Kan., was low bidder on roadside improvements jobs in Jackson and Atchison counties. Tole Landscape Service, Independence, Kan., was low in Cowley county, and Sutton Nursery & Landscape Co., Independence, was low in Cherokee and Crawford counties. A letting will be held September 8 on a project in Dickinson county.

Keith Monahan, Howard Rose Co., Hemet, Cal., is calling on his many customers in the middle west. He reports that the supply of rose-bushes on the Pacific coast is consid-

1870 "LAKE'S" 1943

SHENANDOAH NURSERIES

Shenandoah, Iowa

One of the Midwest's best sources of
GENERAL NURSERY STOCK

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Ornamental Shrubs	Fruit Trees	Roses
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Splendid Field-grown **CHRYSANTHEMUMS AND PHLOX**

We Solicit Your Inquiries

New Fall Trade List available soon

erably smaller than it was last year.

The Kansas City Association of Nurserymen met August 10 at the Wagon Wheels restaurant, Overland Park. A. E. Willis and Harold Crawford, of the Willis Nurseries, Ottawa, Kan., were guests. The next meeting will be early in September when members will be guests of E. Asjes.

Bill Smith, son of C. C. Smith, Sherman Nursery Co., Charles City, Ia., is stationed at Rantoul Field, Ill., where he is in the air corps weather service.

E. S. Welch, president of Mount

Arbor Nurseries, Shenandoah, Ia., accompanied by Mrs. Welch, left the latter part of July for the west coast, where the company has extensive interests.

IN the navy since March 1, Lieut. (j.g.) George H. Kern, of Kern's Wyoming Nurseries, Wyoming, O., is an instructor at an aerial gunnery school at the naval air station on Whidbey island, Wash. He finds it interesting to observe evergreens growing in their native haunts that were cultivated in the nurseries in the midwest.

Irises for the General Nurseryman

By C. W. Wood

An interesting letter from a southern reader on the subject of bearded irises for local sales brings out some good ideas while it poses some difficult questions. Among other things, the reader states that before the days of gas rationing his firm's advertising in local papers while the plants were in bloom brought "a wonderful response in the way of visitors to the nursery and orders for late summer delivery. These orders turned out generally all right and we thought we had struck a good new line for late order-taking when the general season was about over and delivery before the main nursery season starts." But gas rationing changed all that and now he is wondering what the end of the war will bring. The reader brings up some statements made in this column several years ago in which growers were cautioned to go slowly with irises until they were sure of their ground, and he asks for "information as to what features have made them unprofitable to others." Thinking that the reply might be useful to others who face similar problems, the inquiry is being answered here. But first, I shall quote in part the notes of several years ago to which he refers.

"Generally speaking, bearded irises, of which there are a myriad named varieties in existence and numberless more being introduced yearly, form a good channel through which one can drain the profits from other plant sales. That is true for a number of reasons, most of which need not be gone into. Suffice it to say that introductory prices are so high and depreciation is so rapid that the entire business is a headache so far as the neighborhood grower is concerned."

Let us now amplify these thoughts and add a few more which have a bearing on the problem. The iris business, according to my observation and experience, resolves itself into two divisions—that of the specialist who keeps strictly up-to-date with his list, adding all or most of the new varieties while they are in the \$15 to \$50 class, and the general dealer who restricts his list to the best of the older varieties. Both are highly competitive fields, requiring more than the ordinary amount of business acumen to make them successful. All successful specialists that I know have more money invested in stock than the average grower is either able or willing to put into a single item.

Let us glance at one list now on the desk. It contains forty-eight varieties, ranging in price from \$1 to \$15 each, meaning an investment of \$2,000 or more, no doubt. And that is one of the smaller lists. To make sales commensurate with the investment in stock, it would require at least half that sum for advertising space and as much as possible for color work in a catalogue. It is readily seen, then, that this field is no place for the ordinary grower. If, however, after thorough investigation, one thinks he has the equipment, mentally and physically, to concentrate on bearded irises, can advertise them in a national way and has sufficient capital to swing such an enterprise, he will no doubt make some profit from the start and finally work it into a real business.

The general dealer, on the other hand, has an entirely different set of problems. For obvious reasons, he cannot afford to stock the newest kinds. And that puts him in competition with the mass-production artists who depend upon an immense volume of business to turn them a small profit on individual orders. Their prices may run as low as thirty rhizomes for a dollar, prepaid, which is far lower than a neighborhood dealer, with his restricted selling area, can afford to make. A little personal history here may not come amiss. Several years ago (about fifteen, I

should say without looking it up) I sold over a thousand dollars' worth of ordinary iris varieties at the cost of \$126 for advertising space and a printed government post card. That looked like a gold mine, but, unfortunately, it never repeated itself in that gratifying way. Today, I doubt if one could do half that much business on the same investment. And as to local sales, bearded irises have always been more a labor of love than a profitable item. The biggest handicap to local sales, as I have observed the business, is that irises are one of the popular items for the over-the-back-yard-fence traffic which goes on in every community. As a consequence, one or two sales of each item are about the limit, all the neighbors being supplied from these sources.

The foregoing is the dark side of the picture, as I see it. Fortunately, there is a bright side, part of which I shall try to point out, and I hope that other dealers may find time to write the editor, outlining their experiences. I suspect that many neighborhood growers have found they can turn over a few medium-priced kinds yearly. The price limit is largely governed, of course, by one's clientele. In my own case, I find that 35 to 50 cents is about as high as my customers will go. It means buying in stock when it is selling in a retail way at \$2 or such a matter.

PAUL OFFENBERG NURSERY COLUMBUS, OHIO

We offer for the Fall Season:

<i>Juniperus virginiana canaerti</i>	3 to 5 ft.
<i>Juniperus virginiana glauca</i>	3 to 5 ft.
<i>Juniperus virginiana burki</i>	4 to 5 ft.
<i>Juniperus chinensis columnaris</i>	3 to 5 ft.
<i>Juniperus chinensis pfitzeriana</i>	2½ to 4 ft.
<i>Juniperus chinensis depressa plumosa</i>	2½ to 3 ft.
<i>Juniperus chinensis stricta</i>	15 to 18 ins.
<i>Thuja occidentalis pyramidalis</i>	3 to 5 ft.
<i>Thuja occidentalis compacta green</i>	3 to 4 ft.

ALL COMPACT SHEARED, WELL FORMED PLANTS

Lining-out stock in grafted Evergreens and cuttings out of pots, 1 and 2-year planted outside. Grafts. 1½ to 2½ ft. Strong.

Ask for special wholesale price or better come and see and select your stock.

BOBBINK & ATKINS

Nurserymen and Florists

America's Leading
Specialists in: —

Forcing Azaleas

Deciduous Azaleas

including the best named varieties
of Mollis, Pontica and Rustica

Hybrid Rhododendrons

20 leading varieties

Taxus

all varieties, all sizes

Dogwoods

pink and white

Ginkgos and Lindens

Vines

Headquarters for English Ivy

Perennials and Roses

in varieties not obtainable
elsewhere

Write for Catalogue

Patterson Ave. E. Rutherford, N. J.

Evergreens

Barberry

Privet

Write for wholesale price list.

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AMERICAN HOLLY

Berried Specimens

4 to 12 ft.

Eastern Shore Nurseries, Inc.

Easton, Md.

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Nursery Stock.

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Manchester, Conn.

PRIVET and BERBERIS

Splendid Stock

Write for Special Quotations

LESTER C. LOVETT

MILFORD DELAWARE

KOSTER NURSERY

Azaleas, Rhododendrons, Taxus, Junipers, Lilies,
Maples, Dogwood and other items in lining-out
and smaller specimen sizes. For complete line look
up your February 15 or March 1, 1943, issue.

SEABROOK FARMS

Bridgeton,
N. J.

Ask for our latest price list.

Anyone interested in irises should remember, however, that the tall bearded section is only a small part of the material in the family. For instance, there is not nearly the competition in the dwarf bearded kinds, of which there are now many good ones available. Of course, the demand is not nearly so heavy, either, and so one should not plunge into them expecting heavy sales. For a start in these intriguing kinds, I recommend the following: Black Midget, dark purple; Fairy, sky-blue; Glee, pale yellow; Ladies of Peeling, lovely pale blue; Rose Mist, mauve-pink; Silver Elf, gray and white; Snow Cup, white; Trautleib, pink; Zobeida, smoky-lavender.

And then there is a long list of beardless species. Some of these are more interesting to collectors than they are valuable as landscape plants, but there are many that could be classed among the finest of all irises. No iris surpasses in beauty the white form of the Japanese roof iris, *I. tectorum*. It is reputedly a poor doer in some quarters, but that must be a local reaction, for it does splendidly here in north Michigan in light soil in full sun.

I suspect that it would resent too much moisture at any time of year and especially in winter; so it would probably need a well drained situation where the soil is heavy. It is quite hardy here in spots protected from cold winds, indicating hardiness in most sections of the country. The type with its ivory-crested, flat, blue-purple flowers is also a lovely thing, quite unusual in irises. It may be readily increased from seeds, which are freely produced, sown as soon as ripe. Some seedlings will bloom the second year, though the majority will require three years. The white variety must be grown from divisions to be sure of true stock. If I were restricted to one iris, I should choose *I. tectorum album*.

For another reason, I am fond of the European, *I. foetidissima*. The bluish flowers cannot be called lovely, it is true, but the orange and red seeds which hang to the open pods all winter are a bright ornament during the dull months. This is an accommodating plant, too, adjusting itself to full sun or considerable shade and to light as well as heavy soil. As gardeners never would buy the plant because of its flower, it must be sold by the enthusiasm of the dealer or by a colored picture of the plant in cases where it is not known.

I shall not take the space now to go into the details of the *Iris aurea*,

PLANT NOW

and keep up your stock.

You will probably be
too busy next spring.

SEEDLINGS

	100	1000
<i>Abies concolor</i> , 4 to 6 ins.....	\$4.00
<i>Abies fraseri</i> , 4 to 6 ins.....	3.00	\$25.00
<i>Picea canadensis</i> , 4 to 6 ins....	3.00	25.00
<i>Picea excelsa</i> , 6 to 8 ins.....	4.00	35.00
<i>Picea excelsa</i> , 6 to 8 ins., tr. 6.00	50.00	
<i>Picea glauca albertiana</i> , 3 to 4 ins.....	3.00	25.00
<i>Picea pungens glauca</i> , 6 to 8 ins.....	3.00	25.00
<i>Picea pungens glauca</i> , 8 to 10 ins., tr.....	10.00	90.00
<i>Pinus mughus</i> , 4 to 8 ins.....	5.00	40.00
<i>Pinus nigra</i> (austriaca), 8 to 10 ins.....	4.00	35.00
<i>Pseudotsuga douglasii</i> , 6 to 8 ins.....	3.00	25.00
<i>Syringa vulgaris</i> , 10 to 15 ins.....	4.00	35.00
<i>Thuja occidentalis</i> , 6 to 8 ins., tr.....	6.00	50.00
<i>Thuja orientalis</i> , 10 to 12 ins., tr.....	6.00	50.00
<i>Tsuga caroliniana</i> , 3 to 4 ins. 4.00	35.00	

CUTTINGS

From 2½-inch pots.

\$12.00 per 100, 500 or over at \$10.00
per 100.

Ilex crenata bullata.
Juniperus depressa plumosa.
Juniperus horizontalis Bar Harbor.
Juniperus hibernica.
Juniperus excelsa stricta.
Juniperus pfitzeriana.
Juniperus sabina.
Retinospora plumosa aurea.
Taxus cuspidata.
Taxus cuspidata nana.
Taxus intermedia.
Taxus media hicksii.
Taxus cliftoni.
Taxus repandens.
Thuja occidentalis compacta.
Thuja globosa.

GRAFTS

	10	100
1-year from 2½-inch pots.		
<i>Cornus florida rubra</i>	\$3.50	\$32.50
<i>Juniperus columnaris glauca</i>	3.50	32.50
<i>Juniperus chinensis</i> <i>neoboriensis</i>	3.50	32.50
<i>Juniperus squamata meyeri</i>	3.50	32.50
<i>Juniperus virginiana burki</i>	3.50	32.50
<i>Juniperus virginiana canaerti</i>	3.50	32.50
<i>Juniperus virginiana glauca</i>	3.50	32.50
<i>Juniperus virginiana</i> <i>keteleeri</i>	3.50	32.50
<i>Juniperus virginiana</i> <i>kosteriana</i>	3.50	32.50
<i>Juniperus virginiana schotti</i>	3.50	32.50
<i>Juniperus virginiana</i> <i>pyramidiformis</i>	3.50	32.50
<i>Thuja orientalis aurea nana</i>	2.75	25.00

HESS' NURSERIES

Mountain View, N. J.

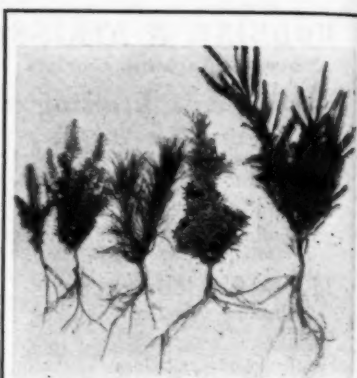
I. orientalis, *I. monnieri*, *I. ochroleuca* tangle. I am not fully acquainted with all the confusion anyway, and, furthermore, it would probably not be interesting to many if it could be untangled. It may be said, though, that all the plants I have seen under these labels are excellent yellow irises, from the bright yellow of the rather tender 2-foot *I. aurea* to a 5-foot specimen, deep yellow in color, which I saw once under *I. monaurea* label. All of this group that I have grown are best in moist rich soil, and most of the material grown here has been slightly tender. They would, however, make good landscape plants for near-bog planting, not only for their good colors, but also because of their flowering season in June and July. Other beardless species of merit are the western Chinese *I. wilsoni*, yellow with deep brown veins; *I. graminea*, with plum-scented violet-colored flowers; the rather tender, tall (4-foot), bright violet *I. delavayi*; the copper-colored native, *I. fulva*, a poor bloomer here; *I. missouriensis*, yellow-blotched, lavender-lilac, also a poor bloomer here, but said to do well in moist soil, and that beautiful native of the northern states, *I. versicolor*, whose blue-lilac flowers, marked with yellow on the claw and veined purple, is one of our brightest ornaments for wet places. Separate paragraphs will be given two of the most important species of the beardless section—the Siberian and the Japanese irises.

I am not alone in giving the first of these a warm spot in the affections. The Siberian irises have, first of all, most of the characters we look for in the perfect hardy perennial, such as great adaptability and perfect hardiness. One does not have to worry during an especially cold winter, for he knows the Siberians will be there when spring comes, ready to go ahead and add their contribution to the color procession. And it makes little difference where they are put, be it in full sun or quite shady, near-bog or in dry light soil. In addition, plant breeders have given us during late years a beautiful array of new varieties, much improved in their coloring, shape and size. One would expect, as a consequence, that the Siberians would be among the most popular of irises; actually, however, one can go through garden after garden in which will be found tall bearded kinds still selling for \$3 or more per plant and not see a single 50-cent Siberian. I was at a loss to understand the reason for these conditions until I made it a point to look for the Siberians in the grounds of neighborhood growers and

then I knew they were not being shown to gardeners. If the neighborhood nurseryman wants to add irises to his list, he will do well to investigate the newer Siberian varieties. He will find, among other things, that he has less competition here than he will have in tall bearded kinds and far less competition for over-the-back-yard-fence trade. Among other kinds, I can heartily recommend these moderns: Blue Charm, large standards and round horizontal falls of light blue; Caesar's Brother, black-purple, a standout; Heavenly Blue, described by the name; Lady Godiva, pinkish-lavender; Red Emperor, reddish-purple with blue veins, and White Empress, a beautiful new white, which will replace Snow Queen if it is as good a performer over the years.

All that was said about the adaptability and ease of culture of *I. sibirica* could be repeated in the case of the Japanese, *I. laevigata*. It could be added that, if preference is to be given, slightly acid soil should be provided for both species. Much business will be done in Japanese irises during the next decade—trade in which you and I can share if we make careful selection of varieties and show our customers how to handle the plants for best effects. Their number is legion, and their desirability and usefulness are varied. The best advice, I think, tells one to watch a good collection go through its performance, or, in the absence of that, to take the advice of a specialist and his catalogue. We should remember, however, in handling the Japanese irises that we cannot expect best results unless they are given plenty of moisture from spring until the blooming season. That is true of all forms of *I. laevigata* that I know and is especially true in the case of variety *semperflorens*, which will, if given an abundance of moisture, produce a succession of yellow-blotched blue flowers from early summer or mid-summer into October in this section.

There is not room now to do full justice to the *evansia* section. It should have been done while we were considering *I. tectorum*, but other, and perhaps more important, matters intervened. Before closing, however, our native *I. cristata* and the little Japanese beauty, *I. gracilipes*, should be mentioned. *I. cristata* is one of our most important landscape irises, spreading into pleasing clumps in leafy soil in sun or partial shade and making May a more brilliant month with its golden-crested lavender blooms, on plants up to six inches in height. Use it liberally for best effects. There are also a pure white form, lovelier even than the type, but



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Left to right—3-year Special Colorado Blue Spruce; 3-year Canadian Hemlock; 3-year Special American Red Pine; 4-year Pyramidal Arborvitae; 4-year Norway Spruce.

S.—denotes Seedlings. T.—denotes Transplants.

AUSTRIAN PINE

Grown from Certified Seed—one of the best for Christmas Trees. Per 100 Per 1000

2-yr. S., (2-0), 3 to 5 ins....	\$3.00	\$15.00
3-yr. S., (2-0), 6 to 12 ins....	2.00	15.00
3-yr. T., (2-1), 5 to 10 ins....	4.00	20.00
5-yr. T., (3-2), 10 to 16 ins....	7.00	35.00

SPECIAL AMERICAN RED PINE

One of the best for both Timber and Christmas Trees. Seed obtained from finest stands of virgin American Red Pine.

2-yr. S., (2-0), 2 to 4 ins....	\$2.00	\$10.00
2-yr. S., (3-0), 4 to 8 ins....	3.00	15.00
3-yr. T., (2-1), 4 to 7 ins....	4.00	20.00
4-yr. T., (2-2), 6 to 10 ins....	8.00	40.00

NORWAY SPRUCE

Excellent for both Timber and Christmas Trees. Short needle.

2-yr. S., (2-0), 3 to 6 ins....	\$2.00	\$10.00
3-yr. S., (3-0), 6 to 12 ins....	3.00	15.00
4-yr. S., (4-0), 10 to 20 ins....	4.00	20.00
4-yr. T., (2-2), 5 to 10 ins....	7.00	35.00
6-yr. T., (4-2), 12 to 22 ins....	8.00	40.00

BLACK HILLS SPRUCE

Superb slow-growing bushy short-needle ornamental tree.

2-yr. S., (2-0), 1 to 3 ins....	\$2.00	\$10.00
3-yr. S., (3-0), 3 to 6 ins....	4.00	20.00
4-yr. S., (4-0), 6 to 12 ins....	4.00	20.00
4-yr. T., (3-1), 5 to 10 ins....	5.00	25.00

SPECIAL COLORADO BLUE SPRUCE

Seed hand-picked from select Blue Trees only. One of the most popular Ornamental and Christmas Trees. Slow-growing. Very bushy.

2-yr. S., (2-0), 3 to 5 ins....	\$2.00	\$10.00
3-yr. S., (3-0), 5 to 10 ins....	3.00	15.00
3-yr. T., (2-1), 4 to 8 ins....	4.00	20.00
4-yr. T., (2-2), 5 to 10 ins....	8.00	40.00

CANADIAN HEMLOCK

One of the Ornaments most in demand and one of the few trees that will grow in full shade or full sunlight. Can be sheared back for years. Planted as single trees or in hedge work. You can do almost ANYTHING with Hemlock.

2-yr. S., (2-0), 4 to 8 ins....	\$3.00	\$15.00
4-yr. T., (2-2), 5 to 10 ins....	8.00	40.00
7-yr. T., (3-4), 10 to 22 ins....	12.00	60.00

PYRAMIDAL ARBORVITAE

2-yr. S., (2-0), 6 to 12 ins....	\$6.00	\$30.00
4-yr. S., (4-0), 12 to 18 ins....	8.00	40.00
4-yr. T., (3-1), 10 to 16 ins....	10.00	50.00

UPRIGHT or SPREADING JAPANESE YEW

When ordering, state which variety desired.

4-yr. S., (4-0), 4 to 8 ins....	\$10.00	\$70.00
4-yr. T., (3-1), 3 to 7 ins....	14.00	80.00

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SEEDS

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PERENNIALS

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not quite so vigorous, and another, white with lavender suffusion, known as McDonald's form.

Gracilipes, on the other hand, needs some care in this climate, although it does quite well even this far north if given a light leafy soil, well drained and protected from cold winds. The ethereal flowers, blue with lilac veinings and an orange crest, on stems up to a foot in height, are worth that effort. There is also a pure white form of it, rare in gardens, and therefore a good item for the neighborhood grower. It has been my experience that most sales at greatest profit in irises come from the rarer species or rarer forms, and I believe I am right in recommending other small growers to investigate that phase of iris culture before giving it up as profitless.

URGES PUBLIC TO SAVE ELMS FOR CAMOUFLAGE.

War-time emphasis on the value of trees as camouflage appears in the first paragraph of a new publication by the United States Department of Agriculture, on "Dutch Elm Disease and Its Control." "In the northeastern part of the United States and in other localities," says circular 677, "a large proportion of the trees that are important in camouflaging cities, factories, military structures and highways are elms. All feasible steps should be taken to protect and maintain these trees in health. In the northeast, Dutch elm disease is at present the principal threat to the well-being of the elms. Because of the war the federal control program is being directed toward preventing the expansion of the infected areas and destroying the disease in isolated areas. More and more, private owners of elms must protect their own trees and carry out the sanitary measures necessary to restrict the disease. To furnish owners and managers of elm-concealed factories, estates and valuable installations with the necessary information concerning the disease and its insect carrier is the object of this circular."

LLOYD A. POTTENGER, who recently resigned from his position as superintendent of parks at Indianapolis, Ind., is back operating his business, the Pottenger Nursery & Landscape Co. "Only a short time before the city hall patronage committee demanded my resignation, Mayor Tyn-dall had voiced approval of my work," Mr. Pottenger, Republican, explained in discussing the city's Democrat administration.

SPECIALTIES

Build Business

Here are some good ones:

Blue Spiraea
Garden Sage
Lespedeza penduliflorum
Purple Wistaria, blooming strain
Rose Acacia, tree form
Globe Locust
Tea's Weeping Mulberry
Goldflame Honeysuckle
Idaho Locust
Salix purpurea nana
Kerria japonica, double
Teucrium chamaedrys
Gypsophila Bristol Fairy
Buddleia Floralart
Koeleria paniculata
Mallow Marvels, pink, red, white
Cydonia japonica, selected strains

THE WILLIS NURSERY CO.
Progressive Nurserymen
OTTAWA, KAN.

We Offer —

For Fall 1943

EVERGREENS—In a large assortment of PYRAMIDAL ARBOR-VITAE, PFTZER JUNIPER and YEW in grades at attractive prices. SOME LARGE SPECIMEN EVERGREENS, SHRUBBERY, SHADE TREES, BARBERRY 2-yr. transplanted, both red and green in grades.

CALIFORNIA PRIVET, 1 and 2-yr. in grades.

Mail want list for prices

THE WESTMINSTER NURSERIES
WESTMINSTER, MARYLAND

Beautiful Hemlocks

We offer exceptionally fine plants, well developed, good color, excellent roots. Grown in clay loam, they ball well. Sizes 3 to 7 feet. Prices a little higher, but plants are worth it.

To be taken by truck—no shipping.

GHEENT RIDGE NURSERY

Mail—35 Marvin Ave., Akron, O.

Nursery located 1 1/2 miles west of Gheent, off route No. 21.

PRINCETON NURSERIES
of PRINCETON, N. J.

SUPERIOR

Hardy Ornamentals

Nursery Stock at
Wholesale Only.



ARTHUR DUMMETT
61 W. Grand St. Mount Vernon, N.Y.

What's New in War Control Orders

NEW DEFERMENT RULES.

Changes in the rules for inducting men under the selective service system were announced August 14 by the War Manpower Commission. The three-point program was outlined by Chairman Paul V. McNutt as designed (a) to hold essential workers on war-useful jobs if they are so employed now; (b) to assure transfer of workers to jobs aiding in the war effort, and (c) to supply men needed for the armed forces.

In the list of nondeferable activities and occupations, florists still remain, under the heading of wholesale and retail trade, and gardeners in the list of nondeferable occupations.

However, part 2 of the list of critical occupations, covering professional, technical and scientific occupations, lists "horticulturist" among such others as accountant, agronomist, entomologist, forester, plant physiologist or pathologist and engineers of various professional types. No definition of horticulturist appears, but in reference to engineers appears the statement: "This title covers persons who are actually engaged as engineers in the operating, research or teaching phase of these professions, who are qualified either by having met the educational requirements or because of long experience."

Maybe the interpretation of "horticulturist" is up to the local draft board, at least until a definition is obtained from the War Manpower Commission. It would seem that young men engaged in teaching horticulture could qualify as being engaged in the critical occupation of horticulturist, although several of them have already been inducted, as is well known. Some nurseries are given technical direction by men who have graduated from the departments of horticulture in some of our state universities, and these individuals have been found quite necessary to the continued efficient operation of such establishments. If the term horticulturist in this list of critical occupations is to apply to men other than those engaged in government service, it would appear that professionally trained men, or those of long experience, who are necessary to continued nursery production would merit consideration as well.

On a revised list of essential workers issued August 17 was included "tree trimming for power and communications lines."

FARM REPAIR PRIORITIES.

Farmers have been given priority for the repair of farm equipment, by amendment to priorities regulation 19 by the War Production Board, effective August 9.

The amended regulation provides that a farmer need only submit a certificate of need at a repair shop to get priority on the use of the shop's equipment in repairing his farm machinery. The farmer's order supported by his certificate is to be considered the same as an order rated AA-5.

This regulation is the same that requires that whenever a farmer orders farm supplies listed by WPB from a dealer who has them in stock, the dealer must fill the order if the farmer gives him a signed certificate as follows:

I certify to the War Production Board that I am a farmer and that the supplies covered by this order are needed now and will be used for the operation of a farm.

The dealer may sell the supplies to the farmer without a certificate, but the dealer must get a certificate at the time he sells if he wishes to use it to get a priority for replacing the supplies in his inventory.

If a farmer wants to use a certificate to buy more than \$25 worth at one time of any item on the list, he must first get his certificate approved in writing by the county farm rationing committee.

The action in amending the regulation is in line with the program worked out by the Office of Civilian

Requirements to assist farmers in obtaining supplies they need to increase food production.

The list of items on which farmers may obtain priority through the use of the certificate has been extended by the same order. Among the items added are agricultural containers such as wooden baskets and boxes, extension and orchard ladders, pipe couplings, tree pruners, scythes, pruning shears, valves, wire bale ties and wrenches.

Some twenty-six items were deleted from the previous list. Most of these have been brought under the control of the new farm machinery and equipment order, L-257. The ratio between supply and need on the remainder of the eliminated items is such that it is believed farmers do not require preference over other buyers.

L. GRAHAM BOWIE, Philadelphia, Pa., was forced to sell out his nursery stock last fall and since the first of the year has been in the coast artillery, now a private in headquarters' battery, coast artillery school detachment, Fort Monroe, Va.

BUXUS SEMP. WELLERI

(Weller's Hardy Northern Type)

Only Boxwood proven hardy in Northern States for Twenty Years

	Without Ball	Per 10	Per 100
6 to 8 ins. for hedging	\$2.50	\$20.00	
8 to 10 ins. for hedging	3.00	25.00	
10 to 12 ins. for window boxes	4.00	35.00	

Lining-out grade, 1-yr., strong-rooted,
3 to 6 ins.,
\$7.50 per 100; \$60.00 per 1000
6 to 8 ins.,
\$10.00 per 100; \$85.00 per 1000

Successful shipment after October 1.

WELLER NURSERIES CO., Inc.
Holland, Mich.

Ask for our Perennial Catalogue

SEEDLINGS

For Fall Planting. For Cash.

If you have rain or can soak the stock, take advantage of slack time and get your bedding done now. This is No. 1 stock and above grade.

Balsam Fir **Concolor Fir**
White Pine Ponderosa Pine
Colorado Blue Spruce
Canadian Hemlock **Douglas Fir**
American Arborvitae

3-yr., 4 to 8 ins. \$15.00 per 1000
2-yr., 2 to 6 ins. 10.00 per 1000

Highbush Cranberry, 2-yr.
10 to 14 ins. \$1.50 per 100
Ready now. Moss Packing.

J. R. PALMER & SON
Blackduck, Minn.

WILD FLOWERS and FERNS

For Fall Planting

Free Catalogue

WAKE ROBIN FARM
Home, Pa.

HEMLOCKS

Write for prices on our surplus trees for fall orders.

CURTIS NURSERIES
CALLICOON NEW YORK

Old English BOXWOOD

(Wholesale Only)

All slow-grown dense specimens. Red clay soil. Priced by height and spread. 15x12 ins. to 24x22 ins. in unlimited quantities. Also large specimens up to 5 ft. Write for price list.

BOXWOOD GARDENS
Mrs. R. P. Reyer High Point, N. C.

MOUNT ARBOR NURSERIES

E. S. Welch, Pres. - Est. 1875 - Shenandoah, Iowa

--- Wholesale Only ---
"One of America's Foremost Nurseries"

FRUIT TREE SEEDLINGS

Washington-grown

**APPLE—MAHALES—MAZZARD
PLUM—Americana and Myrobalan**

California-Grown ROSES

LARGE ASSORTMENT IN BEST VARIETIES

Large growers of **FRUIT TREES,
SMALL FRUITS, ORNAMENTAL
TREES, SHRUBS, EVERGREENS,
VINES and PERENNIALS.**

Send want list for prices.

Ask for complete TRADE LIST.

CANADIAN HEMLOCKS

All 2 or 3 times transplanted and regularly sheared. Per 10

18 to 24 ins.	\$10.00
2 to 2½ ft.	15.00
2½ to 3 ft.	17.50
3 to 4 ft.	22.50
4 to 5 ft.	30.00
5 to 6 ft.	45.00

12 to 15 ft. Prices on application
Growers of Quality Nursery Stock, Evergreens and
Shade Trees—Since 1892.

Write for Fall Trade List.

B. F. BARR NURSERIES, Lancaster, Pa.

GENERAL LINE OF ORNAMENTALS

Specializing in good Liners
Catalogue on request.

FAIRVIEW EVERGREEN NURSERIES
Fairview, Pa.

EVERGREENS

Juniperus, spreaders and uprights up to 30 inches. Hemlocks up to 4 ft. Pines, red, Scotch, Banks, Thunbergi up to 4 ft. All stock T.T. Priced reasonably.

BARDONA NURSERY
Bakerstown, Pa.

Get to know Leghorn's for your
QUALITY EVERGREENS

Write for our prices on
First-class Nursery Stock
from liners to landscape specimens.
We specialize in Evergreens.

Leghorn's Evergreen Nurseries Cromwell, Conn.

Lining-out Evergreens

Good assortment of standard varieties.
Price list on request.

SCOTCH GROVE NURSERY
SCOTCH GROVE, IOWA

BURTON'S

HEADQUARTERS FOR
**EVERGREEN GRAFTS, TRANSPLANTED
EVERGREENS, SHRUB LINERS.**
Write!
RARE ITEMS YOU DO NOT
FIND IN MOST LISTS!
HILLTOP NURSERIES
EASTOWN, OHIO

MAHONIA AQUIFOLIUM.

Mahonia aquifolium, Oregon grape, is one of the best broad-leaved evergreens for alkaline soil regions. It is a native of the territory from British Columbia to Oregon, Montana and Texas and ranges in height from about three to five feet. It is upright-spreading in its habit of growth, the stems bearing compound, dark green, leathery and spiny-toothed leaves, which turn a deep bronze color in the fall or early winter. The foliage varies from glossy to dull green color. While the glossy-leaved form is the more desirable, the dull-leaved form may be used advantageously in mass plantings to a lesser extent. Flowers are yellow, produced in April, and the blue fruits are showy in August and September. Flowers and fruits are often produced sparingly.

It prefers moist but well drained soils and should be given at least partial shade. In open situations leaf burn will become noticeable by mid-winter, and the unsightly scorched color will persist until spring. Oregon grape is not particular as to soil type, but it should be trimmed severely occasionally to prevent its becoming leggy. It is hardy in Rehder's zone 5. Propagation is usually by seeds, and the seedlings will vary greatly. Especially attractive types should be propagated by cuttings. It will find its use as a specimen, for mass planting with other broad-leaved evergreens and for cut decorative foliage.

L. C. C.

"BUILDERS OF BEAUTY."

Under the firm name in the big sign at the sales yard of the Jackson Landscape Co., 3312 East Forty-third street, Kansas City, Mo., is the slogan in large letters, "Builders of Beauty."

J. M. Jackson, owner, reports that business has increased considerably in the past two years, one salesman and five other men being employed at present.

Mr. Jackson was a retail salesman on the road for the Willis Nursery Co., Ottawa, Kan., for eighteen years and then went into business for himself in 1927. His wife is a decided help, and he has two sons, neither with him now. The elder, 35 years old and married, is now with Sears, Roebuck & Co., at Santa Ana, Cal., but is expected to move back to Kansas City in the fall. The younger son, Robert Lee Jackson, who was 18 years old January 1, was inducted April 19 and is in the air corps, being recently transferred to Sioux Falls, S. D., for his technical training as radio engineer.

FALL 1943

APPLE, 2 and 3-year.
CHERRY, 1 and 2-year.
ELM—MOUNTAIN ASH—BIRCH, Cut-leaf Weeping—**WHITE DOGWOOD—GINKGO—NORWAY** and **SOFT MAPLE—PIN, RED, BURR and WHITE OAK—LOMBARDY POPLAR—REDBUD—SWEET GUM—CRATAEGUS—THURLOW WILLOW.**
BARBERRY, Green and Red.
BEAUTY BUSH.
PRIVET, Amur and Ibota.
EVERGREENS, up to 6 feet.

C. M. Hobbs & Sons, Inc.

Bridgeport Indiana

Oldest and largest Nursery in Indiana
Established 1875.

EVERGREENS

Fine assortment of the best types of B&B Evergreens.

HOLTON & HUNKEL CO.

Milwaukee 1, Wis.

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EVERGREENS

Write us for prices on
Pyramidal Arborvitae

Irish Junipers

and **Taxus Hicksi**

In carload lots for fall or next spring delivery

STORRS & HARRISON NURSERIES

Painesville Ohio



EVERGREENS

For Seventy-eight Years
Growers of Quality Evergreens
Lining-out Stock a Specialty
Write for Trade List

EVERGREEN NURSERY CO.

Established 1864 1 STURGEON BAY, WIS.



Wholesale growers of the best
Ornamental Evergreens,
Deciduous Trees,
Shrubs and Roses.

Write for our current trade list.

THE MALLAY BROTHERS CO.
Painesville, Ohio

GRAFTED JUNIPERS

For spring 1944 delivery.

Also transplanted and finished stock.

NICK'S NURSERY, Anchorage, Ky.

This Business of Ours

Reflections on the Progress and Problems of Nurserymen

By Ernest Hemming

IS TIDEWATER INJURIOUS TO CROPS?

We have been having a terribly dry spell in this locality for several weeks. I met a fellow townsman the other day who greeted me: "Just the man I wanted to see, to ask you if it would be all right if I rigged up a centrifugal pump and pumped water out of the river to irrigate my corn and tomatoes. I had to admit I could not give him a definite answer as to whether the brackish water would do more harm than good.

In this Chesapeake bay country there are thousands of acres of good tillable land adjacent to tidewater, and it does seem strange there does not appear to be any available information on the subject.

It would seem to be worth while to experiment and find out just how tolerant the various crops would be when irrigated with brackish water. The salt content of the water, of course, would have a bearing on it. The tidewater to which I am referring does not taste nearly so salty as the ocean when you are in bathing.

From observation covering a period of over twenty years I am convinced that experiments on a large scale would be well worth while. The first occasion when it was brought home to me that sea water was not so deadly to plant life as I had always thought was when an exceptionally high tide completely flooded an acreage of young boxwood plants of 4 to 5-inch grade. When I saw them completely under water for at least twenty-four hours I mentally wrote them off as a dead loss. To my surprise they appeared to be benefited by it. On another occasion a formal garden, consisting of boxwood, roses and a miscellaneous collection of plants, was subjected to an inundation of tidal water during a dry spell. The garden as a whole appeared to be much benefited.

Of course, most plantmen know that some plants are more tolerant of salt than others; in fact, some are benefited by it. The edible asparagus is a good example. Then there are the native plants, such as groundsel shrub, bayberry, mallows, etc., that grow where the tide covers them daily, and the introduced or garden plants that seem to favor growing along tidewater, like the hydrangeas, the privets, tamarix, bald cypress, beach plum, pyrus, etc.

Another recollection is of a large area of swampland lying adjacent to the brackish river water being raised by pumping out the mud and silt. Where the water evaporated from the pools left by imperfect grading there were obvious deposits of salt, but it seemed to me that after about one winter's rains the ground was completely covered by vegetation.

Lacking definite scientific proof, I should say an occasional irrigation with brackish water would be beneficial to most garden crops during dry weather, provided the water was not allowed to collect in the low places and be evaporated by the sun.

E. H.

TO EXHIBIT NEW FRUITS.

New fruit varieties, named and unnamed, developed in the fruit breeding program at the New York experiment station at Geneva will be exhibited, and their merits and weaknesses discussed by the station specialists, at the twenty-fifth annual meeting of the New York State

Fruit Testing Association, to be held at the station, September 16.

The breeding of new fruits has been a major enterprise at the station for more than forty years. All of the hardy fruits are included in the program, and thousands of seedlings are constantly under observation in the vineyards, orchards and small fruit plantings on the station grounds and elsewhere about the state.

The association is a cooperative organization of professional and amateur fruit growers designed to test further the new fruits originated by the specialists at the station.

Varieties of fruit developed at Geneva and now well established include, among others, Cortland, Macoun and Milton apples; Stanley plum; Seneca sweet cherry; Fredonia, Golden Muscat and Sheridan grapes; Marcy, Newburgh, Taylor and Indian Summer red raspberries; Sodus purple raspberry; Bristol black raspberry, and Catskill and Dresden strawberries.

LAURENCE G. HOLMES, formerly with the Lake City Nurseries, Lake City, Minn., has bought the Red Wing Nursery, Red Wing, Minn., formerly operated by the late Forest H. Sargent.

ORDER NOW for Fall and Spring

A.F.S. "Easi-Off" WOOD PLANT BANDS



Removed without cutting

To carry over nursery stock. . .
Saves time and labor. Gives highest yield. Bands are removed without cutting; therefore, the dirt ball and roots are not disturbed. . .



Easily assembled

● Plant your perennials, roses, evergreens and other stock in A.F.S. "Easi-Off" Plant Bands. Perfectly suited to carry perennials over into fall or spring—saves transplanting losses. Ideal for all stock ready for lining out.

"Easi-Off" PLANT BANDS hold nearly three times as much soil as the equivalent sizes in clay pots, allowing a longer growing time without bound roots.

- Non-porous; holds moisture longer.
- Durable but light; can be shipped without removing the plants, thus retaining moisture for outside feeder roots.

WOOD PLANT BANDS

CAT.	Size in inches	Weight per 1000	Per 1000
No. M-310—1 1/4	x 1 1/4 x 2 1/4	12 lbs.	\$2.95
No. M-320—2	x 2 x 2 1/4	15 lbs.	3.30
No. M-340—2 1/2	x 2 1/2 x 3	20 lbs.	3.75
No. M-350—3	x 3 x 3	21 lbs.	4.10
No. M-360—3	x 3 x 4	32 lbs.	4.75
No. M-391—4	x 4 x 4	40 lbs.	5.60

Packed 1000 to the carton.
We do not break the cartons.

LIGHT WOOD FLATS

For handling and shipping our 1 1/4-inch and 2-inch sizes of Plant Bands. Per 100
M-370; holds twelve 1 1/4-inch Bands. \$2.75
M-390; holds twelve 2-inch Bands. \$3.30

AMERICAN FLORIST SUPPLY CO. 1335 W. Randolph St., CHICAGO 7, ILL.

PLANT EVERGREEN LINERS NOW!

You may have been too busy last spring to line out all the evergreens you wanted to, but you can plant them very successfully during September.

We list a few of our leaders below. Write for complete list. Mail your order quickly.

	Per 1000
American Arborvitae, 4 to 6 ins. Sdigs.	\$35.00
Douglas Fir, 4 to 6 ins. Sdigs.	20.00
Austrian Pine, 6 to 10 ins. Sdigs.	25.00
Mugho Pine, 6 to 10 ins. Trans.	80.00
Norway Pine, 4 to 6 ins. Sdigs.	25.00
Scotch Pine, 4 to 6 ins. Sdigs.	30.00
Black Hill Spruce, 4 to 6 ins. Sdigs.	40.00
Colorado Blue Spruce, 4 to 6 ins. Sdigs.	25.00
Norway Spruce, 6 to 10 ins. Sdigs.	20.00
White Spruce, 6 to 10 ins. Sdigs.	25.00

(Larger sizes and transplants can be supplied. Ask for prices.)

SHERMAN NURSERY CO.
Charles City, Ia.

For Fall Shipment

RED LAKE CURRANT LINING-OUT STOCK

American Arborvitae
Mugho Pine, compact type
Colorado Blue Spruce

ANDREWS NURSERY
Faribault, Minn.

HYBRID LILACS and Peonies for Fall Planting

We specialize in the production of French and Hyacinthiflora Lilac Hybrids and offer a large assortment of varieties in a wide range of color and form.

FALL is by far the best time to transplant Lilacs. Our Special Advance Fall Price List quoting Lilacs, Peonies and Evergreens is now ready.

BRYANT'S NURSERIES
Princeton Illinois

FLOWERING CRABS

(Tree and bush form)

Lombardy Poplar, French Lilac, Spruces

Ask for trade list.

FANCHER'S NURSERY
Sturtevant, Wis.

SMALL FRUIT PLANTS

Evergreens—Shrubs
Lining-out Stock

Send for Complete Trade List

W. N. SCARFF'S SONS
New Carlisle, O.

QUALITY NURSERY STOCK

Evergreen Seedlings and Liners

Inquiries solicited

See Classified Ad for Bargains

C. WILSON'S NURSERY Pembina, Wis.

OBITUARY.

Henry Tietze.

Henry Tietze, president of Westchester Nurseries, Inc., Yonkers, N. Y., died August 7 at his home at the age of 83 years. A native of Germany, Mr. Tietze came to this country early in life and became superintendent of parks at Yonkers in 1910, a post he held for twelve years. He organized the Westchester Nurseries, Inc., in 1918 and was president until the time of his death. He was also founder and director of the First National Bank & Trust Co., Tuckahoe.

Surviving are his widow, Mrs. Pauline Hoferer Tietze, and two daughters, Mrs. John F. Clayton and Mrs. William Kather.

W. E. Fancher.

William Edward Fancher, Sturtevant, Wis., died May 26, after a long illness.

Mr. Fancher was born June 3, 1872. Early in life he took over the management of the nursery business which was organized by his father. Albert Smith Fancher, in 1893. He was one of the organizers of the Wisconsin State Nurserymen's Association, and Fancher's Nursery is an A. A. N. member.

Surviving are his widow, Mrs. Nellie Fancher, and one son, Floyd B. Fancher, who carries on the business.

Dr. C. Stuart Gager.

Dr. C. Stuart Gager, director of the Brooklyn Botanic Garden since 1910 and a noted figure in American horticulture, died August 9 at the age of 70.

TOPS AT CHARLES CITY.

The importance of the Sherman Nursery Co. in the economic life of Charles City, Ia., has been taken for granted because a nursery of its size provides much employment for the townspeople. But outside the locality the firm's influence in political and business circles may not have become known. So it is enlightening to learn that J. F. Christiansen, president of the company, is councilman at large and C. C. Smith, secretary, is councilman for the first ward. Vice-president Harley J. Deems is president of the chamber of commerce, while his son-in-law, Robert Cooper, is president of the junior chamber of commerce. The last-named, it should be added, is connected with Dr. Salisbury's Laboratories, at Charles City.

NORTHERN-GROWN STOCK

Specimen Evergreens
B&B

Evergreen Liners

Hardy Fruit Trees

Ornamental Shrubs

and

Fruit Trees

J. V. BAILEY NURSERIES

Dayton's Bluff Station

St. Paul 6, Minn.

SPECIMEN TREES

3000 to 4000 each: Holleana and Lombardy Poplars, Chinese Elm, Soft Maple, Red Oak, American Ash in sizes 6 to 8 ft. and up to 18 ft. in height. 2000 Pfizer Juniper, 24 to 30 ins.

1000 Juniper Glauca, Canadensis, Hill's Dundee, Keteleeri, Irish, Burki, Virginiana, 3 to 4 ft., 4 to 5 ft. and 5 to 6 ft., well sheared specimens.

500 each: Pear and Apple in 4 and 5-year-old bearing-age trees.

Wanted: 10,000 lining-out grapes; 50,000 evergreen and shrub liners.

Egyptian Nursery & Landscape Co.
Farina, Ill.

1887

1943

WE OFFER FOR 1943

our usual line of

SHRUBS EVERGREENS

FOREST AND SHADE TREES

VINES AND CREEPERS

NATIVE PLANTS

Write for Trade List

FOREST NURSERY CO., INC.

J. R. Boyd, Pres. McMinnville, Tenn.

Book orders early.

SPECIMEN EVERGREENS

SNEED NURSERY COMPANY

P. O. Box 798

Oklahoma City, Okla.

EVERGREENS

Popular varieties in Landscape and Sales Yard sizes.

Truck and Car loads.

FIKE NURSERIES, Hopkinsville, Ky.



Ask for **WHOLESALE CATALOGUE No. 19**

1500 VARIETIES

IRIS AND PEONIES

QUALITY!

C. F. WASSENBERG - Van Wert, O.

Reviews of New Books

TREE EXPERTS' MANUAL.

The title "Tree Experts' Manual" exactly describes the book by Richard R. Fenska just published by the A. T. De La Mare Co., New York, at \$4.50, for it gives only sufficient space to preliminary material on trees and their growth to provide definitions. The prime object of the book is to assist the tree expert to do his job.

An outline is presented for the diagnosis of tree troubles. The subject of fertilizing shade trees is discussed in detail. The chapter on transplanting indicates the peculiarities of certain species, as well as general practices to be followed. In the customary work of tree experts, such as pruning, wound dressing, bracing and cabling, the current methods are indicated for the practitioner. Tree diseases, environmental troubles and insect pests are covered rather fully, with additional chapters on spraying and spray materials.

Lists of trees for various purposes, figures on the evaluation of shade trees, summaries of state shade tree laws and a nontechnical key or condensed guide to trees are other features that make this book of direct help and value to the tree man as a reference manual in his daily operations.

DISEASES AND PESTS OF ORNAMENTAL PLANTS.

There are books on plant diseases and books on insect pests, as well as bulletins without number, but it is believed that for the first time a reference volume has been compiled covering the diseases and the insects found in a home flower garden, in greenhouses and in nurseries. This is a volume of 638 pages entitled "Diseases and Pests of Ornamental Plants," published by the Jacques Cattell Press, at \$6.50. The authors are Dr. Bernard Dodge, upon whose fifteen years' experience as plant pathologist at the New York Botanical Garden the book is largely based, and W. L. Rickett, late arrival at the New York Botanical Garden from the University of Missouri, who is responsible for the organization of the work and for most of the writing.

Preliminary chapters treat generally of plant diseases, classifying them by symptoms and causes. A similar general chapter is devoted to insects and animal pests, and a further chapter to control measures and their application.

The remaining 500 pages of the

book list in alphabetical order some 600 species of garden, greenhouse and nursery plants. Under each are briefly mentioned the diseases and insects which affect it, and how, and the methods of control. All of the more important ornamentals of the United States are to be found in the list, constituting a valuable reference book.

EARLY AMERICAN BOTANY.

As the story of the early botanists in America, "John Torrey," by Andrew Denny Rodgers III, is not less important than as a biography of the father of taxonomic botany in this country. Born in New York city in 1796 and graduating from the College of Physicians and Surgeons in 1818, John Torrey was, until his death in 1873, recognized as foremost among botanists in this country. As explorations penetrated farther into the western portions of the country, though he did not take part in them, he was called upon to arrange and describe the plant material brought back. He was responsible for the fine herbarium at the Smithsonian Institute, at Washington, D. C., and also for the foundation of that at the New York Botanical Garden, which holds in trust for Columbia University the herbarium which John Torrey donated to that institution late in his life.

Asa Gray may be the more familiar name on account of his textbook, but he was Torrey's pupil and later a collaborator. The combination, Torrey and Gray, is familiar to botanists, for between them they classified a tremendous amount of material gathered on the American continent.

From boyhood John Torrey was interested in the natural sciences, especially botany, and his medical practice and later his professorships at Princeton and Columbia were but the means of self-support so that he might engage in his prime hobby and interest. At the age of 27 he was elected a fellow of the Linnean Society, an honor unusual for one so young and not British. When late

in life he became chief assayer to the United States mint, in New York city, he finally was able to devote himself strenuously to reports on the plants which the explorers of the western United States brought back from their expeditions. The work of these explorers and of other botanists of the time is related rather fully by the author in a series of fascinating tales. Little of the personal life of John Torrey is touched upon, but the ramifications of his activities in

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700 Finished Trees

18 to 24 ins. and 24 to 30 ins.

Beautiful stock B & B

Also Tamariscifolia, various Pines,
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HIGH VALLEY FARM

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Headquarters for . . .

Fruit and Shade trees with vigorous
roots and sturdy stems.
Flowering trees, Weeping trees.
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We can supply
PINK FLOWERING DOGWOODS in
quantities. Shall appreciate your want
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SOUTHERN NURSERY & LANDSCAPE CO.

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PYRACANTHA DUVALI

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A Striking Plant for Nursery Display

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early American botany are thoroughly pursued. This interesting book of 352 pages is published by the Princeton University Press, at \$3.75.

GARDEN BOOK FOR MIDWEST.

Designed for gardeners in the northern plains states, "Live at Home and Like It," by Franc P. Daniels, Long Lake, Minn., performs a real service for horticulture in that area. Not only does it answer the questions of home gardeners with information directly pertinent to their conditions, but it should help the nurserymen in that area through encouraging their customers to better success with the plants they purchase. Proprietor of the Daniels Nursery, the author has been a commercial grower of fruit, ornamentals and vegetable plants for thirty years, and he has had contact with his audience through teaching winter courses in horticulture at the University of Minnesota farm school for twenty-three years. This book of 116 pages, bound in green paper cover, contains a rather thorough presentation of what the gardener should know, in compact form, and some nurserymen will find it useful for reference, too. Published by the Minnetonka Publishing Co., Long Lake, Minn., at \$1, the book has met so favorable a reception that a second edition is contemplated before long.

ABOUT POISON IVY.

The third edition, completely revised, of "What Do You Know About Poison Ivy?" by George Graves, is just off the press. This 20-page pamphlet, published by the Massachusetts Horticultural Society, Boston, at 25 cents, constitutes the most exhaustive study of the subject of this plant pest and its effects.

NORTHERN NUT GROWERS.

The thirty-third annual report of the Northern Nut Growers' Association, for 1942, contains in its 100 pages the most recent information on nuts and nut growing from many angles and from many states. The national survey furnishes a cross section of the country's experiences in nut production for the preceding year. Numerous short articles on various phases furnish diverse information of interest. To keep up-to-date on nuts is well worth the annual membership fee of \$2 just for this booklet, edited by Dr. W. C. Deming, Ridgefield, Conn. The secretary of the association is George L. Slate, of the New York experiment station, Geneva, N. Y.

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Coming Events

CONVENTION CALENDAR.

September 9 and 10—Ohio Nurserymen's Association, joint meeting with A. A. N. members of region 3, Hotel Netherland Plaza, Cincinnati.

September 22 and 23—California Association of Nurserymen, annual meeting, Hotel Carillo, Santa Barbara.

PROGRAM AT CINCINNATI.

For the combined summer meeting of the Ohio Nurserymen's Association and region 3 of the American Association of Nurserymen, a strong program has been prepared for the two days of September 9 and 10, at the Netherland Plaza hotel, Cincinnati.

One session will be devoted to speakers from the state of Ohio, another session to landscape nurserymen's problems and two sessions to reports of A. A. N. officials and prominent individuals in region 3, which comprises the states of Ohio, Indiana, Illinois, Michigan and Wisconsin.

Wednesday evening, September 8, guests will meet in an informal get-together, the Cincinnati Landscape Association and the Ohio Nurserymen's Association acting as hosts. The program in full was published in the August 15 issue.

CALIFORNIA PROGRAM.

The California Association of Nurserymen will hold its thirty-third annual meeting, September 22 and 23, with a state board of directors meeting September 21, at Santa Barbara. The Carillo hotel has been selected as headquarters, instead of the California hotel as originally planned.

Among the speakers already obtained are Richard P. White, executive secretary of the American Association of Nurserymen, Washington, D. C., and Norvell Gillespie, of the camouflage division of the army, San Francisco. Other outstanding speakers will be scheduled, in addition.

There has also been a fine program worked out for the ladies.

OREGON MEETING.

The fall meeting of the Oregon Association of Nurserymen will be a one-day session which will be held Tuesday, September 28, at the Heathman hotel, Portland. Richard White, Washington, D. C., executive secretary of the American Association of Nurserymen, is scheduled to attend. James French, Portland, is in charge of the program.

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Prices 1943 crop Lovell pits from Pacific coast.

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END NURSERY PROJECT.

Both the natural rubber project and the tree-planting program at the Thomas B. Wyman Nursery, at Manistique, Mich., will be discontinued for the duration of the war, according to James W. Walley and G. Willard Jones, representatives of the United States Forest Service.

The natural rubber project was initiated a year ago this spring, when it was decided to attempt to raise Kok-saghyz, the Russian dandelion, for the purpose of obtaining rubber from the roots. However, it has been found that the soil in that area is too light for the plant, and the major portion of the crop will be lifted in the fall and the remainder next spring. It is planned to transfer the project to areas where the soil is heavier, possibly the Saginaw valley and parts of Wisconsin and Minnesota.

The Thomas B. Wyman Nursery was started after the city of Manistique had donated land for the project to the forest service. It was enlarged in 1936 and, when operating at full strength, took the major part of a CCC force to run it and produced 20,000,000 trees of 2-year stock. Trees in the nursery will be available to the public in the fall and next spring, after which it is planned to devote the entire area to a cover crop, and the nursery will be operated on a custodian basis for the duration.

W. A. NATORP ILL.

W. A. Natorp underwent an emergency operation for appendicitis, August 25, at Christ hospital, Cincinnati, O. He is progressing favorably, according to report, and it is hoped that he will be in good shape for the coming meeting of the Ohio Nurserymen's Association.

STILL MAKING POTS.

Although Ernest Haysler has been obliged to discontinue the nursery business of the Cloverset Flower Farm, Kansas City, Mo., while his son is in service, he is doing what little he can to supply pots to the customers who have been ordering them. Only a small number can be turned out, as labor is so short that the office force has to help make the pots. The most acute shortage in supplies is that of shipping boxes, and Mr. Haysler is asking his customers to return the boxes in which they have received pots, so that other orders can be sent out.

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Jute Twine available on Agricultural Certification. Other materials for tying also to be had.



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GENUINE MOSS PEAT

Hydraulic pressed bales and smaller resale packages. Sphagnum Moss, Cultivated Peat Humus.

Shipped from Northern plant at Floodwood, Minn., and Hanlontown, Iowa. Annual capacity 1,000 carloads.

Now booking for present and future deliveries.

Write or wire for quotations.

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Japanese Yew (Taxus)

3-oz. can - \$1.00

1-lb. can - 4.00

(One pound makes 160 to 1600 gallons of solution for transplanting.)

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is invaluable today in helping to cut down operating costs and to maintain a high volume level.

By using TRANSPLANTONE on all plants when they are moved, you can reduce your losses to the very minimum—especially in unfavorable seasons.

Just soak the soil around the roots of the newly moved plant with TRANSPLANTONE solution. With bare-root plants, nurserymen are getting excellent results by soaking them in a barrel of TRANSPLANTONE solution overnight before planting.

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Blue Columnar Chinese Juniper 12 to 18 ins. xx	.50		Norway Spruce 18 to 24 ins. xx	.24	.22
Keteleer Juniper Grafts	.325	.30	Nest Spruce 4 to 6 ins. x	.12	.10
Keteleer Juniper 12 to 18 ins. xx	.55	.50	White Spruce 10 to 12 ins. xx	.17	.15
Keteleer Juniper 18 to 24 ins. xx	.65	.60	White Spruce 12 to 18 ins. xx	.22	.20
Pfitzer Juniper 6 to 8 ins. x	.12	.10	Dwarf Alberta Spruce 3 to 4 ins. xx	.14	.12
Pfitzer Juniper 10 to 12 ins. xx	.20	.175	Black Hill Spruce 10 to 12 ins. xx	.12	.10
Pfitzer Juniper 12 to 15 ins. xx	.275	.25	Black Hill Spruce 12 to 15 ins. xx	.16	.14
Pfitzer Juniper 15 to 18 ins. xx	.325	.30	Colorado Blue Spruce 6 to 8 ins. x	.09	.08
Blue Sargent Juniper 12 to 15 ins. xx	.60		Limber Pine 4 to 6 ins. x	.11	.10
Green Sargent Juniper 10 to 12 ins. xx	.50		Mugho Pine 4 to 6 ins. xx	.16	.14
Spiny Greek Juniper 4 to 6 ins. x	.11	.10	Mugho Pine 6 to 8 ins. xx	.18	.16
Spiny Greek Juniper 8 to 10 ins. xx	.20	.175	Austrian Pine 12 to 18 ins. xx	.25	.23
Andorra Juniper 10 to 12 ins. xx	.20	.18	White Pine 6 to 8 ins. x	.06	.05
Japanese Juniper 12 to 15 ins. xx	.60	.50	Scotch Pine 12 to 18 ins. xx	.22	.20
Savin Juniper 12 to 15 ins. xx	.40		Douglas Fir 8 to 10 ins. xx	.16	.14
Chandler's Silver Juniper Grafts	.325	.30	Douglas Fir 10 to 12 ins. xx	.18	.16
Silver Glow Juniper 12 to 18 ins. xx	.50		Douglas Fir 12 to 15 ins. xx	.20	.18
Meyer Juniper 10 to 12 ins. xx	.60		Douglas Fir 15 to 18 ins. xx	.22	.20
Hillbush Juniper, dark green 12 to 15 ins. xx	.60	.55	Upright Japanese Yew 6 to 8 ins. x	.16	.14
Redcedar 10 to 12 ins. x	.12	.10	Upright Japanese Yew 8 to 10 ins. xx	.22	.20
Redcedar 12 to 15 ins. x	.14	.12	Spreading Japanese Yew 8 to 10 ins. xx	.22	.20
Burk Juniper Grafts	.325	.30	Spreading Japanese Yew 10 to 12 ins. xx	.24	.22
Burk Juniper 18 to 24 ins. xx	.60	.55	Spreading Japanese Yew 12 to 15 ins. xx	.26	.24
Canaert Juniper Grafts	.325	.30	Brown's Yew 6 to 8 ins. xx	.22	.20
Canaert Juniper 12 to 18 ins. xx	.60	.55	Brown's Yew 8 to 10 ins. xx	.24	.22
Canaert Juniper 18 to 24 ins. xx	.65	.60	Hatfield Yew 6 to 8 ins. xx	.22	.20
Hillspire Juniper Grafts	.325	.30	Hill Pyramidal Yew 6 to 8 ins. xx	.22	.20
Hillspire Juniper 18 to 24 ins. xx	.65	.60	Media No. 1 8 to 10 ins. xx	.22	.20
Silver Juniper Grafts	.325	.30	Hick's Yew 8 to 10 ins. x	.12	.10
Silver Juniper 18 to 24 ins. xx	.65	.60	Hick's Yew 6 to 8 ins. xx	.16	.14
Dundee Juniper Grafts	.325	.30	Hick's Yew 8 to 10 ins. xx	.18	.16
Dundee Juniper 12 to 18 ins. xx	.60	.55	Hick's Yew 15 to 18 ins. xx	.40	.35
Dundee Juniper 18 to 24 ins. xx	.65	.60	American Arborvitae 18 to 24 ins. xx	.325	.30
Nevins Blue Juniper 18 to 24 ins. xx	.55		Pyramidal Arborvitae 10 to 12 ins. xx	.16	.14
Hill Pyramidal Juniper 15 to 18 ins. xx	.50		Pyramidal Arborvitae 12 to 18 ins. xx	.35	.30
Pachysandra terminalis 6 to 8 ins. x	.05	.04	Pyramidal Arborvitae 18 to 24 ins. xx	.45	.40
Norway Spruce 8 to 10 ins. x	.10	.09	Hemlock 6 to 8 ins. x	.09	.08
Norway Spruce 10 to 12 ins. xx	.14	.12	Hemlock 10 to 12 ins. xx	.24	.22
			Hemlock 12 to 18 ins. xx	.27	.25

Each x indicates one transplanting. 50 of same variety and size at 100 rate, 250 at 1000 rate. The above are a few selected items from our new wholesale catalog ready for mailing early in September.

D. HILL NURSERY COMPANY

Evergreen Specialists

Largest Growers in America

DUNDEE, ILLINOIS